AVerMedia®
AVerDiGi MOB1304 NET
Mobile Security DVR System

User Manual

March 2009

FCC NOTICE (Class B)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Federal Communications Commission Statement

NOTE- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help

European Community Compliance Statement (Class B)

This product is herewith confirmed to comply with the requirements set out in the Council Directives on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive 2004/108/EC.

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THE MARK OF CROSSED-OUT WHEELED BIN INDICATES THAT THIS PRODUCT MUST NOT BE DISPOSED OF WITH YOUR OTHER HOUSEHOLD WASTE. INSTEAD, YOU NEED TO DISPOSE OF THE WASTE EQUIPMENT BY HANDING IT OVER TO A DESIGNATED COLLECTION POINT FOR THE RECYCLING OF WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT. FOR MORE INFORMATION ABOUT WHERE TO DROP OFF YOUR WASTE EQUIPMENT FOR RECYCLING, PLEASE CONTACT YOUR HOUSEHOLD WASTE DISPOSAL SERVICE OR THE SHOP WHERE YOU PURCHASED THE PRODUCT.

Battery Safety Information

- Store the batteries in a cool dry place.
- Do not dispose of used batteries in domestic waste. Dispose of batteries at special collection points or return to point of sale if applies.
- Remove the batteries during long periods of non-use. Always remove exhausted batteries from the remote control. Battery leakage and corrosion can damage this remote control, dispose of batteries safely.
- Do not mix old and new batteries.
- Do not mix different types of batteries: alkaline, standard (carbon-zinc) or rechargeable (nickel-cadmium).
- Do not dispose of batteries in a fire. The batteries may explode or leak.
- Never short circuit the battery terminals.

SAFTETY WARNING

WARNING

TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION

IF THERE IS ANY DAMAGE, SHORTAGE OR INAPPROPRIATE ITEM IN THE PACKAGE, PLEASE CONTACT WITH YOUR LOCAL DEALER. WARRANTY VOID FOR ANY UNAUTHORIZED PRODUCT MODIFICATION.

CAUTION

DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

NOTICE

- INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE.
- THE INFORMATION CONTAINED HEREIN IS TO BE CONSIDERED FOR REFERENCT ONLY.

SAFETY PRECAUTION

- Refer all work related to the installation of this product to qualified service personnel or system installers.
- Do not block the ventilation opening or slots on the cover.
- Do not drop metallic parts through slots. This could permanently damage the appliance. Turn the power off immediately and contact qualified service personnel for service.
- Do not attempt to disassemble the appliance. To prevent electric shock, do not remove screws or covers. There are no user-serviceable parts inside. Contact qualified service personnel for maintenance. Handle the appliance with care. Do not strike or shake, as this may damage the appliance.
- Do not expose the appliance to water or moisture, nor try to operate it in wet areas. Do take immediate action if the appliance becomes wet. Turn the power off and refer servicing to qualified service personnel. Moisture may damage the appliance and also cause electric shock.
- Do not use strong or abrasive detergents when cleaning the appliance body. Use a dry cloth to clean the appliance when it is dirty. When the dirt is hard to remove, use a mild detergent and wipe gently.
- Do not overload outlets and extension cords as this may result in a risk of fire or electric shock.
- Do not operate the appliance beyond its specified temperature, humidity or power source ratings. Do not use the appliance in an extreme environment where high temperature or high humidity exists. Use the appliance at temperature within indoor type DVR for 45°C and 5°C and humidity below 90%.
- **Read Instruction** ： All the safety and operating instructions should be read before the unit is operated.
- **Retain Instructions** ： The safety and operating instructions should be retained for future reference.
- **Heed Warnings**： All warnings on the unit and in the operating instructions should be adhered to.
- **Follow Instructions**： All operating and use instructions should be followed.
- **Cleaning**： Unplug the unit from the outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning
- **Attachments**：Do not use attachment not recommended by the product manufacturer as they may cause hazards.
- **Water and Moisture**：Do not use this unit near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, near a swimming pool, in an unprotected outdoor installation, or any area which is classified as a wet location.
- **Servicing**：Do not attempt to service this unit by yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

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Chapter 1 Introduction

AVerDiGi MOB1304 NET is a 4-channel stand-alone DVR unit for mobile solution that can be installed on the vehicle for security monitoring. It provides real-time monitoring and digital recording of surveillance video. Up to 4 video cameras and 4 sensor devices can be hooked up to this DVR unit. It also provides one audio input and output channel.

DVR unit can be controlled through LCM with remote control. Also, With the On-Screen-Display (OSD) menu, user can customize video recording setting, sensor and alarm settings, password protection, hard drive recycling, and more.

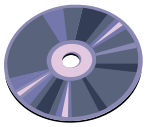
Surveillance video is recorded in high-quality MPEG4 format. Three recording modes are supported; **D1 Enhanced** Mode can record video from each video camera in higher resolution at 60/50 fps and **D1** Mode can record video from each video camera in higher resolution at 30/25 fps and **CIF** Mode can record video in lower resolution and up to 120/100 fps (NTSC/PAL).

1.1 Package Content

(1)

(2)

(3)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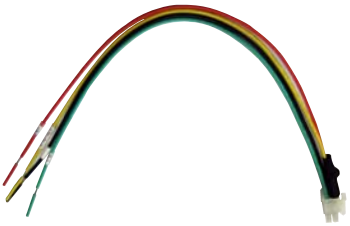

(7)

(8)

(9)

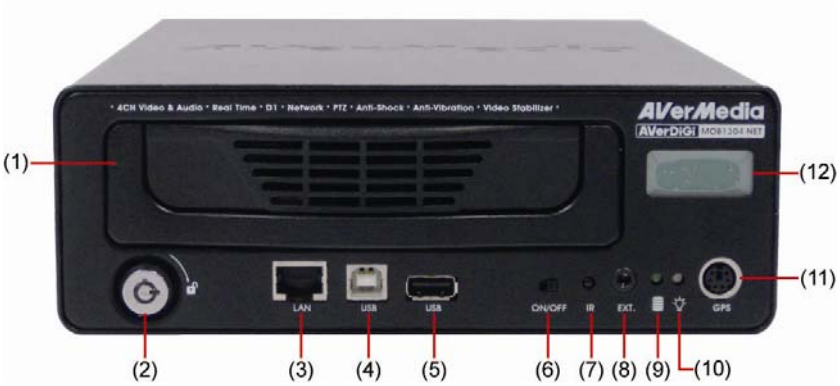
- ☐ (1) AVerDiGi MOB1304 NET unit
- ☐ (2) Remote control (batteries included)
- ☐ (3) USB cable
- ☐ (4) Software CD (User Manual included)
- ☐ (5) Z-bracket x 2 (including 4 screws)
- ☐ (6) Removable hard disk drawer accessories (with spare screws)
- ☐ (7) Power cable
- ☐ (8) SATA cable
- ☐ (9) An extended IR sensor cable

1.2 Features and Specifications

- **Key Features**
  - Non-PC stand-alone security digital video recorder
  - Free bundled iStable software (video stabilizer) to avoid shaking and jolts impact
  - Shockproof by rubber vibration insulator and brackets for double protection
  - Support 2.5” or 3.5” SATA hot swappable HDD
  - Power circuit protection for peak voltage
  - LCM to display setting information and product status
  - Selectable function to operate the fan system automatically and stop HDD recording when overheated
  - Stable power supply for cameras and able to operate under low voltage
  - 4 composite video inputs (BNC connector)
  - Provide 1 BNC and 1 VGA output
  - Video compression: MPEG4
  - Video Format: NTSC and PAL
  - 1 channel audio input/output
  - Display resolution:720 x 480/720 x 576 (NTSC/PAL)
  - Display frame rate: Total 120/100 fps (NTSC/PAL)
  - Hue/Brightness/contrast/Saturation adjustable
- **Recording frame rate:**
  - CIF: 120/100 fps (NTSC/PAL)
  - D1: 60/50 fps (NTSC/PAL)
  - D1 Enhanced: 30/25 fps(NTSC/PAL)
- **Recording mode:**
  - Schedule recording (00:00~24:00 set by hour)
  - Continuous /Motion / Sensor/Smart/Manual recording
  - Auto recycle recording
  - Auto record enabling
  - Password authentication mechanism
- **Mechanism protection:**
  - Selectable function to operate the fan and stop HDD recording automatically
  - Fan can operate automatically when degree is over 45℃
  - Stop HDD recording automatically when degree is over 55℃
- **Playback Mode:**
  - Video search by date/time/event
  - Infinite event list for easy search
  - A-B video repeat playback
- **Free Playback Application Software:**
  - Playback and backup on any PC with Windows 2000/XP/Vista
  - Converting files to AVI format enabling to playback on Windows Media Player
  - iEnhance video processing software for better video quality
  - iStable(Video Stabilizer software) to avoid shaking impact on video
  - Video segment selectable for repeating payback and backup
  - Enabling quick HDD to HDD backup
  - Watermark function for image verification
  - A-B video repeat playback

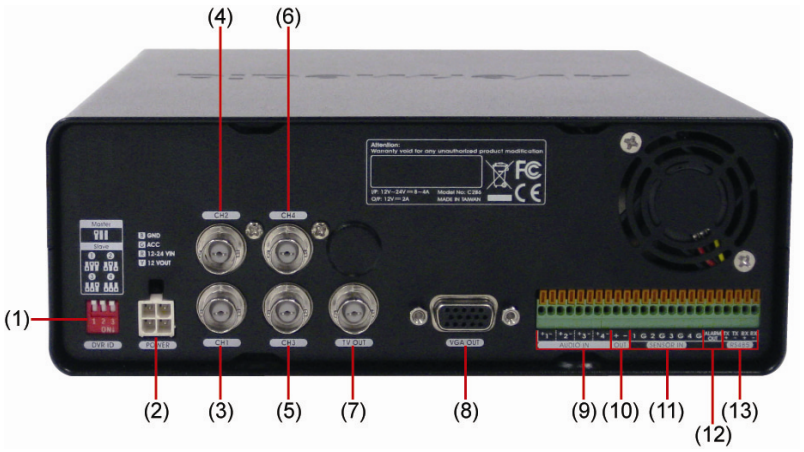
- **I/O**
  - 4 Sensor inputs
  - 1 Relay output controlling alarm, lock, light, or other devices

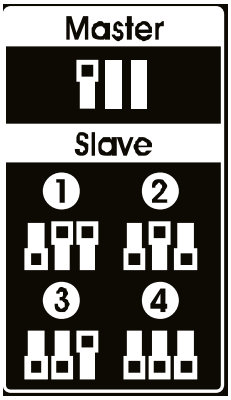
1.3 Front Panel



Name	Function
(1) SATA removable HDD Drawer	For installing 2.5” or 3.5” SATA hard disk ⚠ The DVR unit supports hot swap of hard disk. User can unlock the hard disk key lock and swap the hard disk while the DVR unit is running. The DVR system will stop recording and shutdown hard disk when the hard disk key lock is unlocked. Remove the hard disk when the hard disk stops message display on the monitor/LCM panel.
(2) Key lock of SATA removable HDD	Lock/unlock the hard disk drawer
(3) Ethernet port	For Internet connection
(4) USB port	Connect to PC/NB for video backup or playback
(5) USB 2.0 Port	- To connect pen drive / external hard disk for backup - To connect mouse for OSD menu controlling ⓘ The pen drive/ external hard disk must be in FAT32 format.
(6) Power switch	Power on / off the DVR unit
(7) IR sensor	Receive signal from the remote control to operate the unit
(8) IR sensor port	To connect an extended IR sensor cable
(9) HDD LED	Indicate running state of the hard disk. Lights when the HDD is running
(10) DVR power LED	Lights when the unit is on
(11) GPS connector	To connect the GPS device
(12) LCM display panel	- To configure DVR unit without connecting to monitor - To display system status and setup message

1.4 Back Panel



Name	Function
(1) DVR ID switch	To setup an ID identification of DVR for series connection controlling. Please refer the switch setup direction on rear panel of DVR to setup. - The black spot indicates the position of switch. - Only one DVR can be the **MASTER**. 
(2) Power plug	Connecting the power cord. The power cord divide into 4 lines – GND (Green), V/N 12V In(Red/Positive +), ACC (Yellow), and 12V Out (Black/Negative -) that each line has sticker on it.
(3) CH1	Input the video camera signal and display it on channel 1
(4) CH2	Input the video camera signal and display it on channel 2
(5) CH3	Input the video camera signal and display it on channel 3
(6) CH4	Input the video camera signal and display it on channel 4
(7) Video Out (BNC)	Output the video signal to a TV(Call Monitor) The DVR unit supports dual video output – Video Out and VGA Out.
(8) VGA Out	Output the video signal to a LCD monitor
(9) Audio In	Input the audio signal from a microphone or audio output device. Microphone with its own power supply is necessary and the internal amplification must be used.
(10) Audio Out	Output the audio signal to a speaker The audio out device with its own power supply is necessary.
(11) Sensor In	Support 4 sensor device
(12) Alarm Out	Support 1 relay device (Relay: 1A @ 125V AC/30V DC)
(13) RS485	For PTZ camera connection

1.5 Setting Up the DVR Unit

1.5.1 Installing the Hard Disk

The DVR unit allows you to install one SATA hard disk.

- For hard disk spec, please referring to http://www.avermedia.com/AVerDiGi/ → Products → AVerDiGi EB Series → AVerDiGi MOB1304 NET → Hardware Recommendations
- The DVR unit support hot swapping. Therefore, user can swap the hard disk without shutdown the DVR unit.

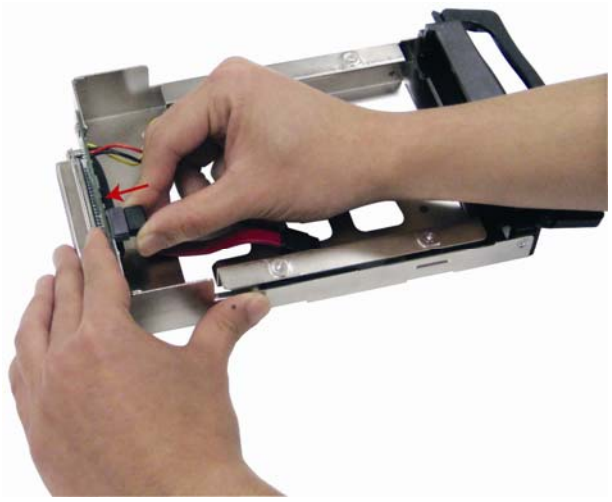
The "compatible hard disks" indicated in the above recommendation list only means that these commercially available hard disks were tested with AVerMedia products and functioned well under normal operation conditions. AVerMedia does not guarantee or provide warranties, explicitly, implied or statutory with respect to the reliability of the hard disk function or its compatibility. In no event AVerMedia shall be liable for damages, with respect to any business interruption of clients, lost profits, loss of programs or other data on your information handling system or otherwise. This includes direct, indirect, incidental, special, or consequential damages, resulting from the incompatibility caused by the usage of these hard disks, even if AVerMedia has expressly advised about the risk of such damages. The entire risk arising out of the use of any information attached here with is borne by the recipient.

Follow the illustrated instructions below to install the hard disk:

1. Using key to unlock the hard disk key lock

2. Pull removable hard disk drawer out

3. Connect the SATA cable to the connector that inside of hard disk drawer.



4. Connect another side of SATA cable to the hard disk.

5. Connect the power connector to the hard disk. And then, put the hard disk inside the hard disk drawer carefully. Please **watch out** the **SATA cable** when put the hard disk into the hard disk drawer.

6. Using the both hand to hold and turn the hard disk drawer over carefully. And then, adjust the hard disk to appropriate position and secure the hard disk with 4 screws on the hard disk drawer.

7. Slide the hard disk drawer back into DVR unit.

8. Using key to lock the hard disk key lock

9. You may now connect all the devices, cables, and power. When the power is connected, the Power LED light turns on

1.5.2 Mounting the DVR Unit

The DVR unit can be mounted in two ways. User can uses the Z-brackets (4 screws included) to mount the DVR unit as the figure below shown.

1.5.2.1 Installing the lower Z-brackets

1. Screwed the Z-bracket for both side.

2. Finished look

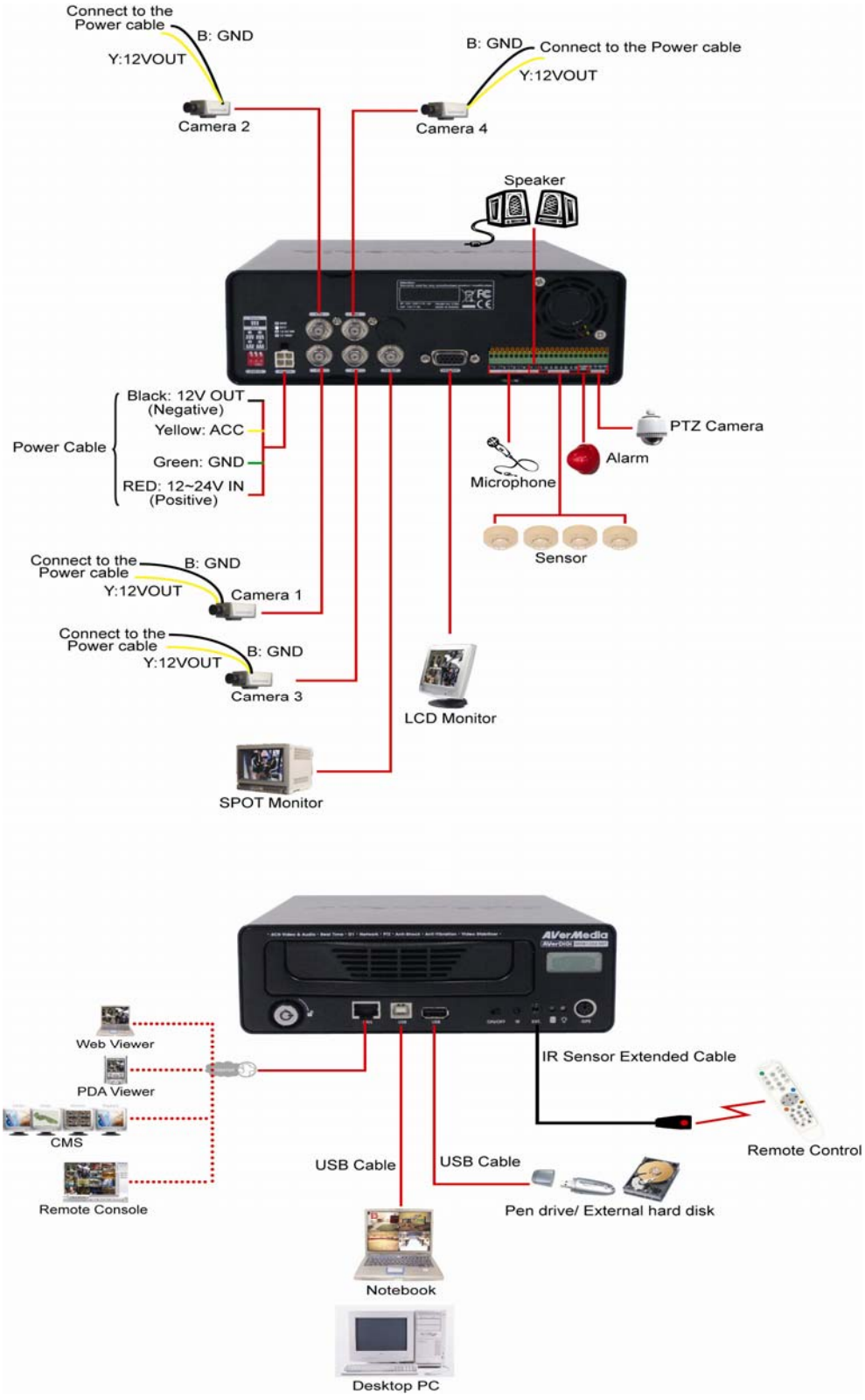
1.5.2.2 Installing the Upper Z-brackets

1. Screwed the Z-bracket for both side.

2. Finished look

1.5.3 Connecting Devices

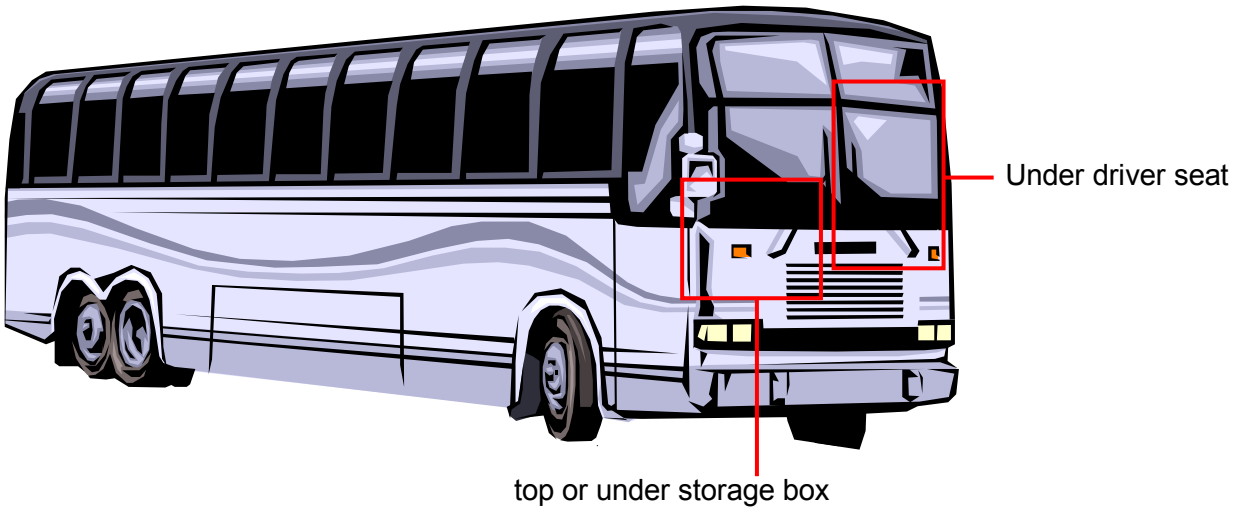
The following figure is a sample of DVR unit with all devices' connection:



- To avoid installing the MOB DVR unit in moisture location.
- To make sure the install location provides sufficient ventilation to keep proper operating temperature between 45°C and 5°C.
- Leave a front space that is enough for sliding removable hard disk drawer in and out.
- Secure the MOB DVR unit to avoid unauthorized person to damage or tamper the unit, wires, cameras, and any accessories.

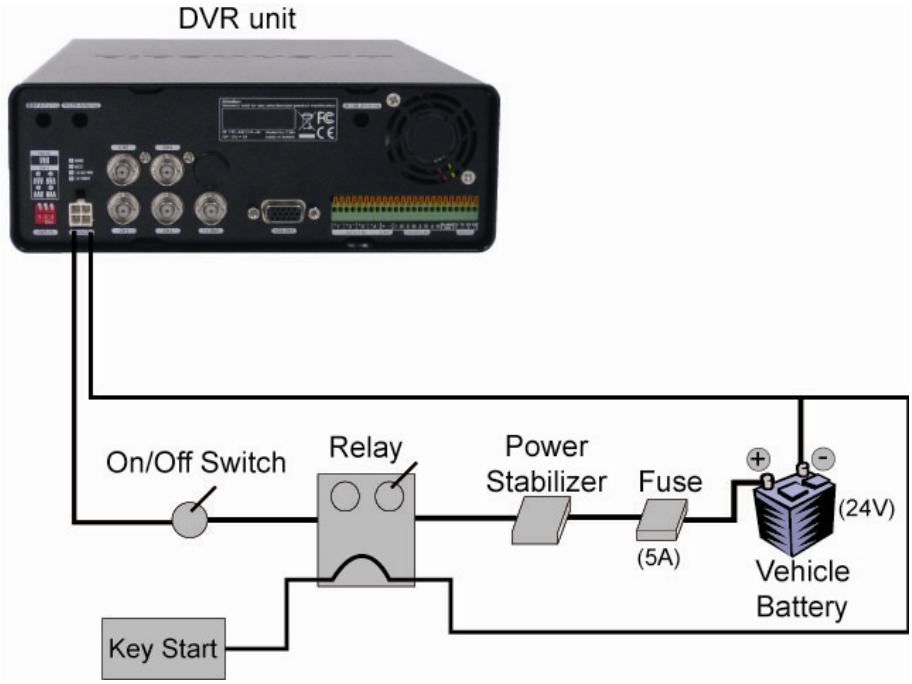
1.5.3.1 Install on the Bus

DVR Install Location:

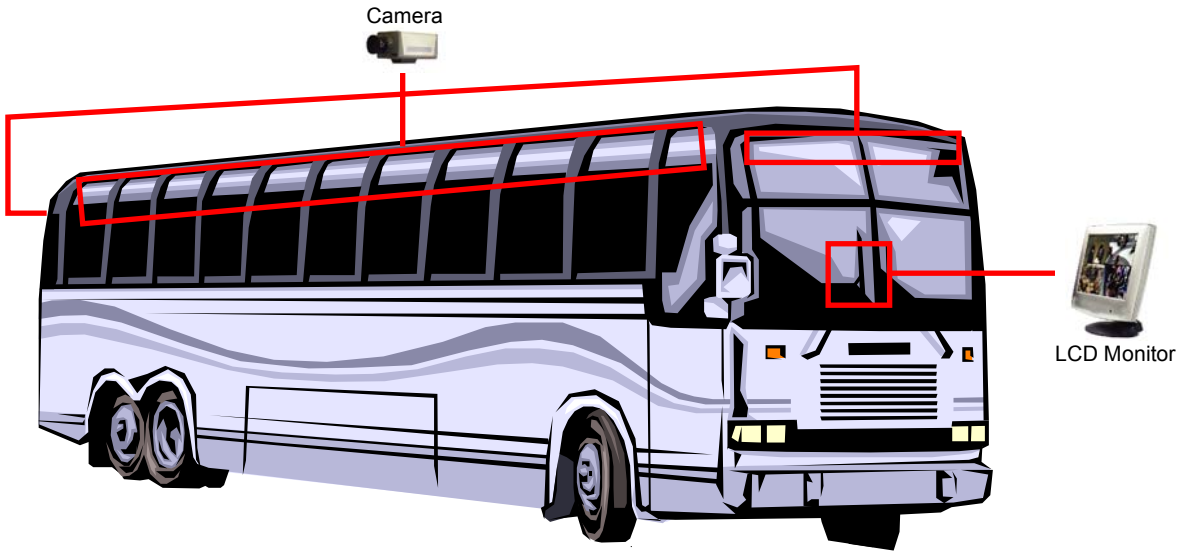


Do not install DVR unit near the door side and on the floor, those locations are high quake spot and are easily to damage the DVR unit.

Circuit diagram:



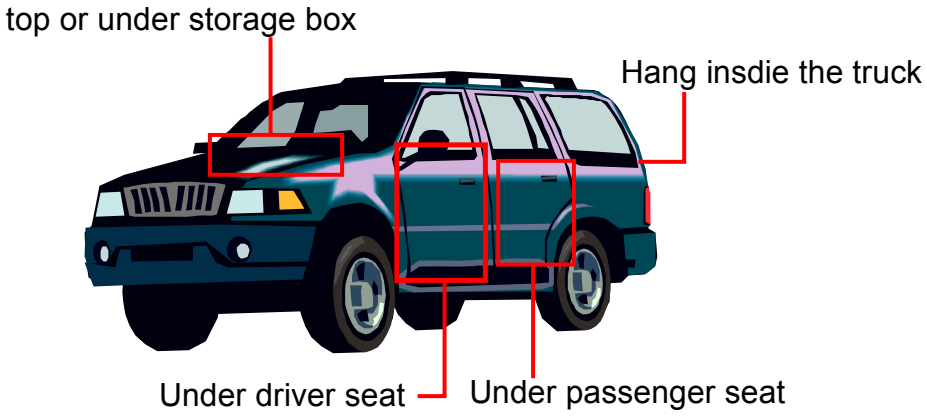
Camera/LCD Monitor Install Location:



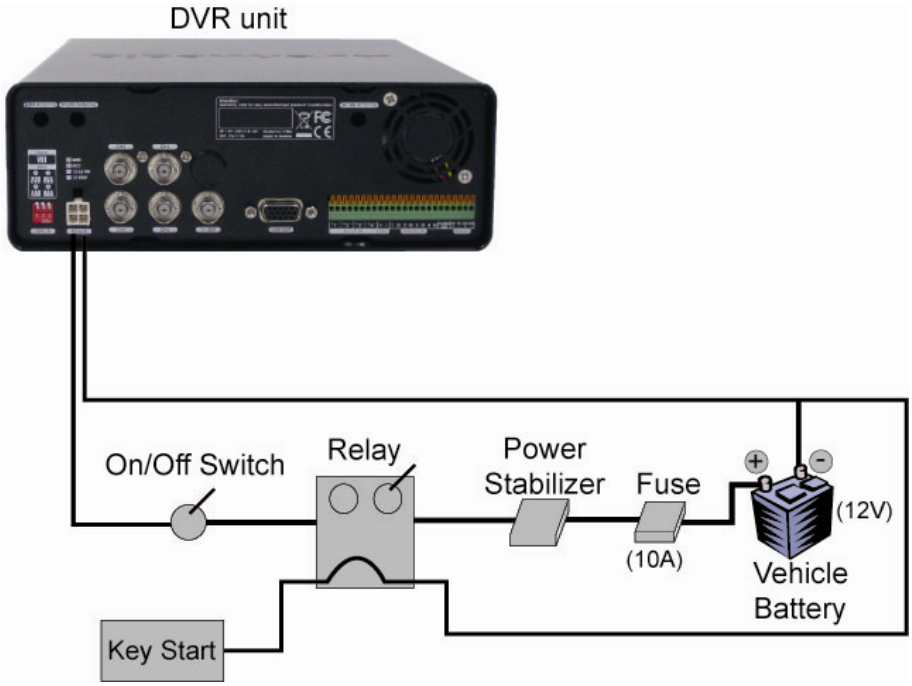
- The LCD monitor power can connect to the ignition of bus.
- The camera power is connected to the DVR camera power cable and plugs the video cable into DVR video input.

1.5.3.2 Install on the Car

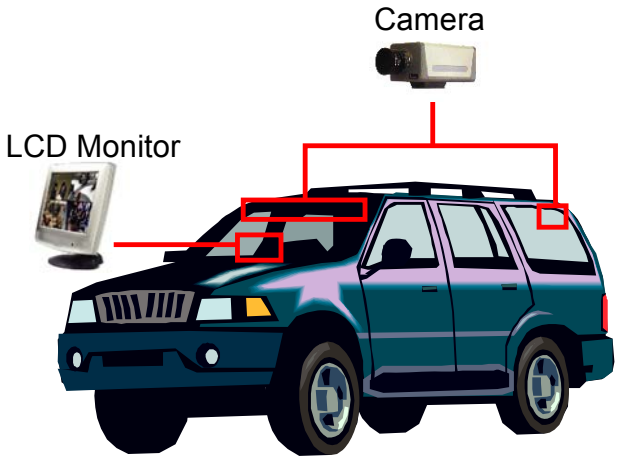
DVR Install Location:



Circuit diagram:



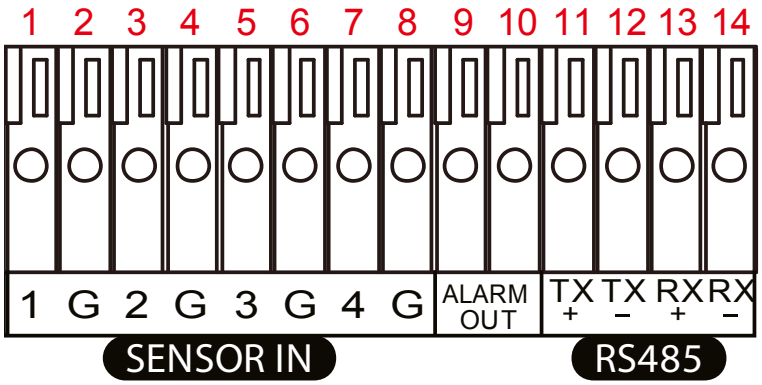
Camera/LCD Monitor Install Location:



- The LCD monitor power can connect to the ignition of bus.
- The camera power is connected to the DVR camera power cable and plugs the video cable into DVR video input.

1.5.4 Connecting the Sensor/Relay/RS485 Device

The Sensor and Alarm ports enable you to connect (4) sensor inputs and (1) relay outputs. Just connect the external sensor and relay pin directly to the pinhole. The RS485 ports allows user to connect the PTZ camera to the DVR unit. Check the table below and locate which pinhole is assigned to sensor input, relay output, or RS485.



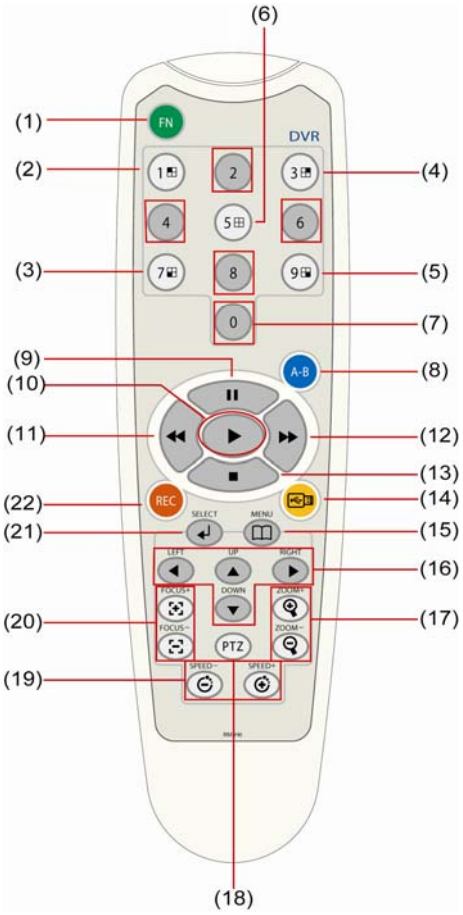
1.5.4.1 I/O Card Sensor and Relay pinhole allocation

The signal from the sensor (i.e., infrared sensors, smoke detectors, proximity sensors, door sensors, etc.) is being transmitted to the unit and this triggers the system to respond and send signal to relay device (i.e., alarm, telephone etc).

Pin #	Definition	Pin #	Definition
1	Sensor 1 signal	**9**	Relay signal
2	Sensor 1 Ground signal	**10**	Relay signal
3	Sensor 2 signal	**11**	RS485 TX+
4	Sensor 2 Ground signal	**12**	RS485 TX-
5	Sensor 3 signal	**13**	RS485 RX+
6	Sensor 3 Ground signal	**14**	RS485 RX-
7	Sensor 4 signal		
8	Sensor 4 Ground signal		

1.6 Familiarizing the Remote Control Buttons

Use the Remote control to operate the OSD menu on surveillance screen.



Button		Function
(1)	FN	A functional key for multiple DVR control
(2)	1	Switch to Channel 1
(3)	3	Switch to Channel 2
(4)	7	Switch to Channel 3
(5)	9	Switch to Channel 4
(6)	5	Switch to QUAD mode
(7)	2	As a number key 2, 4, 6, 8, and 0.
	4	
	6	
	8	
	0	

Button		Function
(8)	A-B	Set a playing recorded video from A point to B point segment and repeat playing on surveillance screen(See 1.6.1)
(9)		Pause the playing
(10)		To play the video
(11)		Decrease the video playback at the speed of 2x, 4x, 8x, 16x, 32x, or 64x
(12)		Fast play the video playback at the speed of 2x, 4x, 8x , 16x, 32x, or 64x
(13)		Stop playing / Stop recording
(14)		USB backup(see 1.6.2)
(15)		To move the selection to the left and right
		To go up and down and select the items in the menu list or change the settings

Button		Function
(16)		To enter the OSD Main menu / Exit from the main menu or sub-menu display
(17)	ZOOM+	To zoom in view of PTZ camera
	ZOOM-	To zoom out view of PTZ camera
(18)		PTZ camera control button. Press PTZ + camera channel button(1 2 3 4)can enter PTZ mode to control PTZ camera.(see 1.7)
(19)	SPEED+	To speed up movement of PTZ camera lens
	SPEED-	To speed down movement of PTZ camera lens
(20)	FOCUS +	To focus in PTZ camera lens
	FOCUS -	To focus out PTZ camera lens
(21)		Make a selection Enter to configure mode of selection
(22)		Start video recording

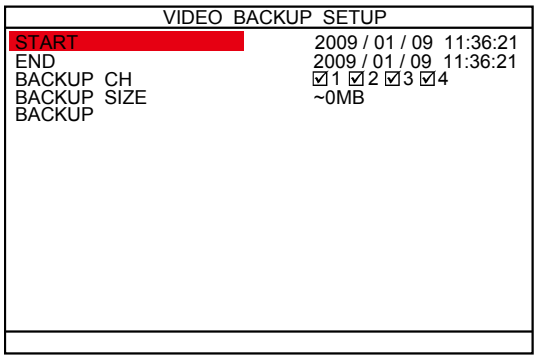
1.6.1 Using AB Segment Function

AB segment function allow user to set a video segment from A to B point and play on the surveillance screen until user stop. User also can backup AB segment video file to pen drive or external hard disk (see also 1.6.2).

1. Press ► (play) to call out the **SEARCH MODE** menu to find the recorded video that user wants to playback.(see also 2.3)
2. Select **TIME SEARCH**, **FILE LIST**, or **SMART MOTION SEARCH**.
   - **TIME SEARCH**: search by date and time
   - **EVENT LIST**: search by condition
   - **SMART MOTION SEARCH**: search by motion event
3. During the playback, press A-B to set the A point of video segment. And then, press A-B again to set the B point of video segment. On the surveillance screen will display "**A-B**" and repeat playing the AB point video segment which user has set. To cancel AB segement, press A-B again.

1.6.2 Using USB Backup Button

User can press button to backup the AB segment video file.



1. Set the AB segment video (see 1.6.1).
2. Plug in pen drive or external hard disk to DVR system.
3. During the AB segment video playback, press button.
4. Select the **START** time of backup time by pressing the button, using and to setup the date and time. To confirm the value or selection, press.
5. Select the **END** to set the end of backup time. Press and use and to setup the date and time. To confirm the value or selection, press.
6. Select the **BACKUP CH** to setup the channel that user wants to backup. Press and use and to select the channel.
7. Select the **BACKUP SIZE** to calculate the total size of backup file.
8. Select the **BACKUP** and press to start backup.
9. When backup confirm message appear, press (YES) to start backup file or press (NO) to exit backup mode.

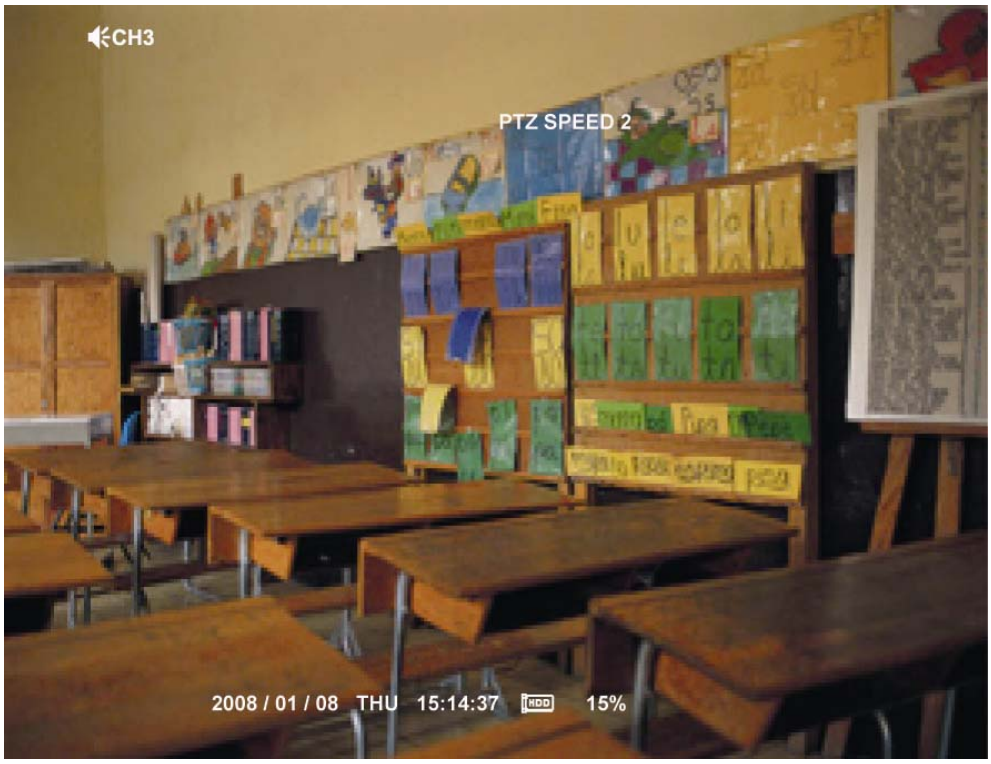
- If the external hard disk is first time using, please format to FAT32 format.
- The external hard disk needs to be powered by external power.

1.7 Controlling PTZ Camera

Using remote control, user can easily control PTZ camera at local site. Before starting, please go to OSD menu to enable PTZ control (see 3.1 Menu Function: PTZ Setup).

1.7.1 To Enter the PTZ Mode

To control PTZ camera, user need to enter the PTZ mode first. Press PTZ button, and camera channel number button (1 2 3 4). The surveillance monitor will switch to single screen and display "**PTZ mode**" on the screen.



To exit PTZ mode, press PTZ and 🕮 button. Also, when user doesn't have any action over 1 minute, the system will automatically exit PTZ mode.

1.7.2 To Set Preset Position

User can set 9 preset positions for PTZ camera. Using 1 to 9 button to set the preset position.

1. Press PTZ and camera channel number button (1 2 3 4) to enter PTZ mode.
2. Using ▲, ▼, ◀ and ▶ to adjust the PTZ camera to the position that user wants.
3. Press any number button over 3 seconds and the position will be saved.
4. To move the PTZ camera to preset position, just press the number button.

1.7.3 To Control PTZ Camera

To move, adjust focus, and zoom in/out camera lens can be done by using some function buttons on the remote control.

▶	To move the PTZ camera lens to the right
◀	To move the PTZ camera lens to the left
▲	To move the PTZ camera lens to go up
▼	To move the PTZ camera lens to go down
ZOOM+	To zoom in PTZ camera
ZOOM-	To zoom out PTZ camera
SPEED-	To speed down movement of PTZ camera lens
SPEED+	To speed up movement of PTZ camera lens
FOCUS +	To focus in PTZ camera lens
FOCUS -	To focus out PTZ camera lens

Chapter 2 Operating the MOB1304 NET

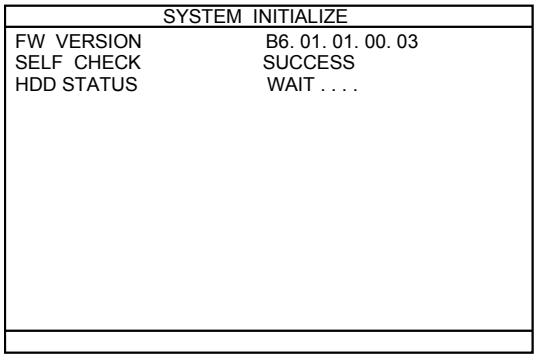
2.1 Using the MOB1304 NET for the First Time

For the first time using the DVR unit, suggest user connect with the LCD monitor and setup DVR unit by using remote control. Once the DVR unit has been set up, user can operate the DVR unit through the remote control and LED panel that is located front panel of DVR unit.

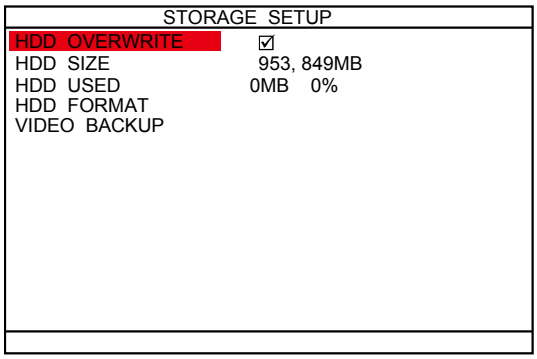
Following the below steps for first time setup.

The hard disk drawer must be locked in order for DVR system to detect the hard disk when DVR system starts up.

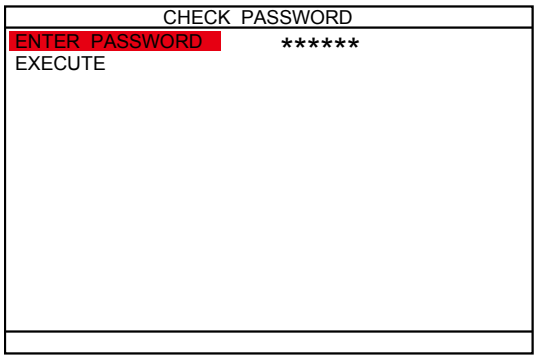
1. Make sure all devices and power cables are well connected.
2. Turn on the DVR unit by switching the On/Off switch to **ON**.
3. User should see the **SYSTEM INITIALIZE** windows appear on the surveillance screen. The system will do the self checking and hard disk detection.



4. When the hard disk has been detected, the **STORAGE SETUP** windows will appear on the surveillance screen.



5. For the first time use hard disk, please format the hard disk. Using ▲ and ▼ to go up and down and press ↵ to make a selection. Select **HDD FORMAT** and press ↵ to enter HDD format screen.
6. To format the hard disk, the password (default password is 000000) is required. Press ↵ and use ▲ and ▼ to enter the password. When is done, select **EXECUTE** and press ↵ to start formatting.



7. When hard disk format is done, please adjust the system date and time in order to have the correct recording date and time.
8. Press (📖) to call up the OSD menu, and then, use (▲) and (▼) to select **SYSTEM** → **DATE/TIME** and press (↵) to make a selection.
9. Press (↵) and use (▲) and (▼) to select the **DATE FORMAT**.
10. And then, adjust the **DATE** and **TIME** by using (↵) to make a selection and using (▲) and (▼) to adjust the date and time.
11. When is done, the DVR system is ready to record.

2.2 Surveillance Screen

This chapter will describe the symbols on the surveillance screen and screen display mode. While DVR is playback, the record action will still working and the surveillance screen will display the playback video.

Surveillance Screen

■ Preview Mode

Symbol	Description
	DVR is recording
	Audio is enabled
	Speaker is available
	Motion recording
HDD 5%	Hard disk capacity
USB	USB device is plugged

■ Playback Mode

Symbol	Description
	Playback the recorded video
	Audio is enabled
A-B	AB segment is set and playing
	Recorded video is playback at backward speed(2x, 4x, 8x, 16x, 32x, or 64x)
	Recorded video is playback at faster forward speed(2x, 4x, 8x, 16x, 32x, or 64x)
A	Always Recording
B	Button Recording
M	Motion Recording
S	Smart Recording

User can switch to display each channel in full screen or 4 channels in D1, D1 Enhanced, or CIF record mode.

Full Screen Mode

QUAD Screen Mode

When you are in full screen preview, press the following buttons on the remote control and control panel to switch to different channel, or preview all 4 channels:

1	3	7	9	5
CH1: Camera 1	CH2: Camera 2	CH3: Camera 3	CH4: Camera 4	QUAD:4-Channel

Current date and time could be displayed on each channel screen by enabling **TIME STAMP** function. Please follow the below steps to enable **TIME STAMP**.

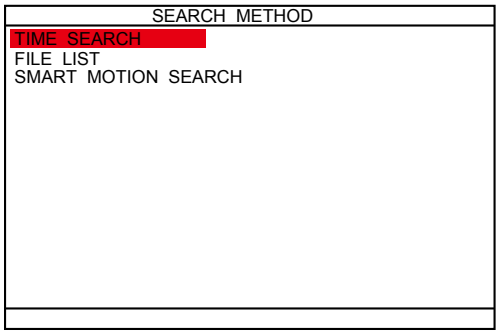
1. Press 🕮 to call out OSD menu.
2. Using ▲ and ▼ move the highlight to **CAMERA/REC** and press ↵ to make a selection.
3. Select **GENERAL** and press ↵ to make a selection.
4. And then, select **TIME STAMP** by pressing ↵ button.
5. Using ▲ and ▼ to select the disable/enable of TIME STAMP and press ↵ or 🕮 to confirm.
6. Press 🕮 to exit from OSD menu.
7. The current date and time will display on upper right corner of each channel screen.

2.3 Playback the Video

To playback recorded video, user doesn't need to stop recording. DVR system supports recording and playback simultaneously.

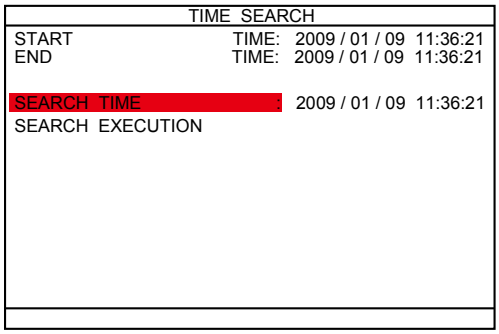
2.3.1 To Playback Video

1. Press ▶ (play).
2. Use the ▲ and ▼ buttons to go up and down and select **TIME SEARCH**, **FILE LIST**, or **SMART MOTION SEARCH**. And then, press ↵ to make a selection.



TIME SEARCH (search by date and time):

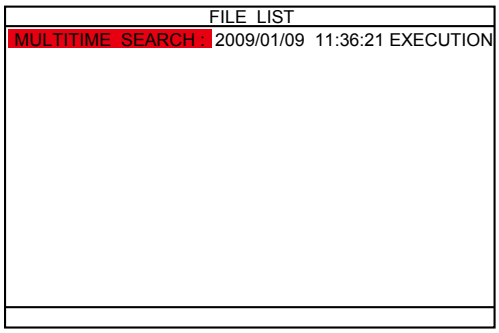
1. In TIME SEARCH window, the **START TIME** and **END TIME** show the date and time from when the recording begins and ends.
2. Press ↵ and use the ▲ and ▼ buttons to set the **SEARCH TIME**.



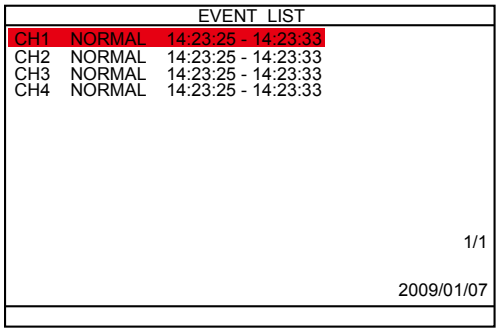
3. After SEARCH TIME has set, select **SEARCH EXECUTIION** and press ↵ to start searching.
4. When the playback file is found, the DVR system will start playback automatically.

FILE LIST (search by condition):

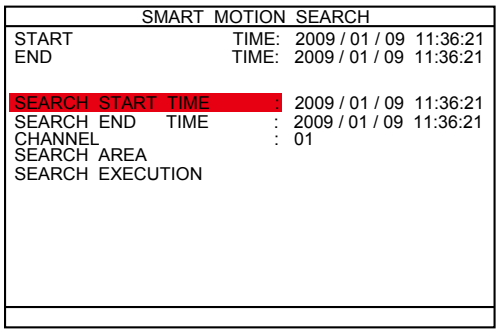
1. In FILE LIST window, press ↵ and use the ▲ and ▼ buttons to set the date and time for searching. And then, select the **EXECUTION** to start searching.
2. The searching result will be list out. Using the ▲ and ▼ buttons to go up and down and press ↵ to make a selection.



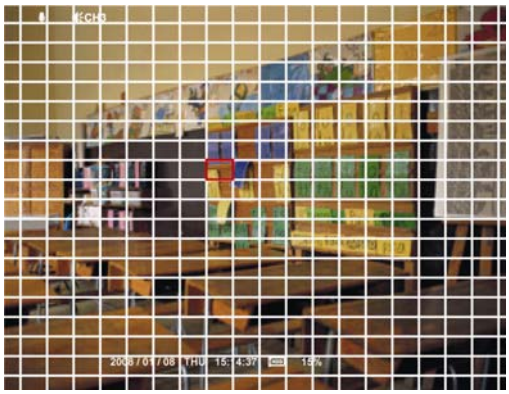
3. After make a selection, the **EVENT LIST** of each channel will list out. Use the ▲ and ▼ buttons to the selection and press ↵ to make a selection.
4. The selected event will start to playback.



SMART MOTION SEARCH (search by motion event):


SMART MOTION SEARCH
START TIME: 2009 / 01 / 09 11:36:21
END TIME: 2009 / 01 / 09 11:36:21
SEARCH START TIME : 2009 / 01 / 09 11:36:21
SEARCH END TIME : 2009 / 01 / 09 11:36:21
CHANNEL : 01
SEARCH AREA
SEARCH EXECUTION

1. In SMART MOTION SEARCH window, the **START TIME** and **END TIME** show the date and time from when the recording begins and ends.
2. Use the ▲ and ▼ press ↵ to set **SEARCH START TIME** and **SEARCH END TIME** for searching period.
3. Then, Select the **CHANNEL** that wants to search.
4. And then, select **SEARCH AREA** to mark an area to search. Use the ▲, ▼, ▶, and ◀ to move the block and press ↵ to confirm. To exit, press 🕮.
5. To start searching, select the **SEARCH EXECUTION**.
6. The searching result will be list out. Using the ▲ and ▼ buttons to go up and down and press ↵ to make a selection.
7. After make a selection, the DVR system will start playback automatically.



SEARCH AREA SETUP SCREEN

Listed below are the symbols of recording condition that will display on surveillance screen while playback mode and record mode:

A – Always Recording

It records non-stop and automatically continue recording when interrupted.

S – Sensor Recording

It records when the sensor has activated.

M – Motion Recording

It records when any movement is detected

B – Button Recording

It records when the REC record button is pressed.

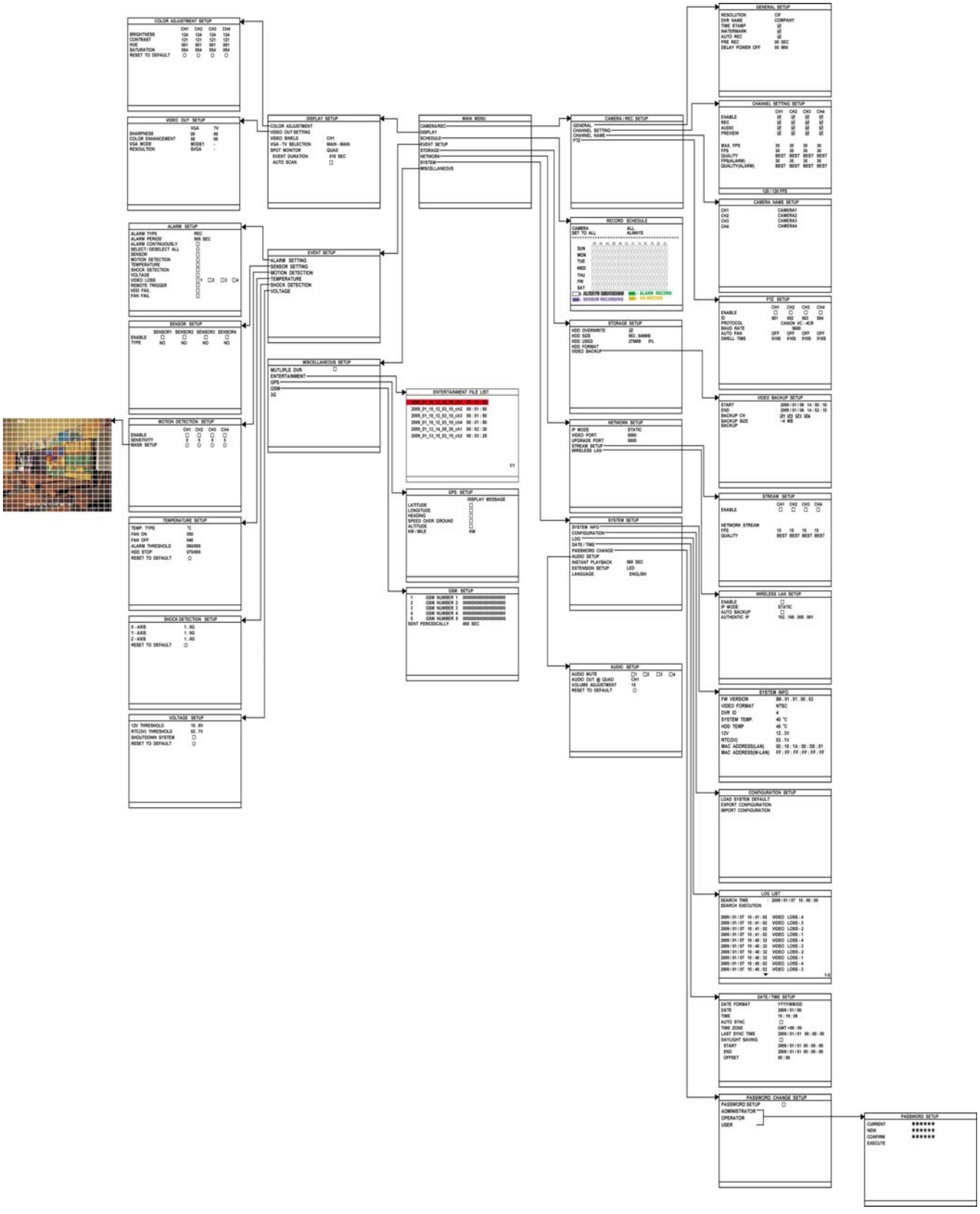
N – NO Recording

It doesn't record at all

The " ▸ " play symbol would appear beside the channel number when you are in playback mode.

Chapter 3 OSD Navigation Tree

The follow figure is an OSD menu tree map. To call out the OSD menu, press 🕮 button on the remote control.

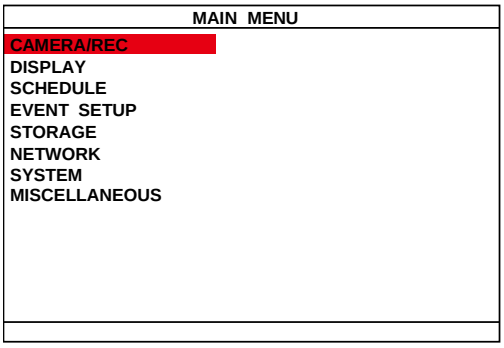


3.1 Menu Function

To navigate in the OSD menu, press to call up and exit from the main menu or sub-menu display. Then use and buttons to go up and down and select the items in the menu list or change the settings. Use button to enter sub-menu or make a selection. User also can use and buttons to move the selection to the left and right.

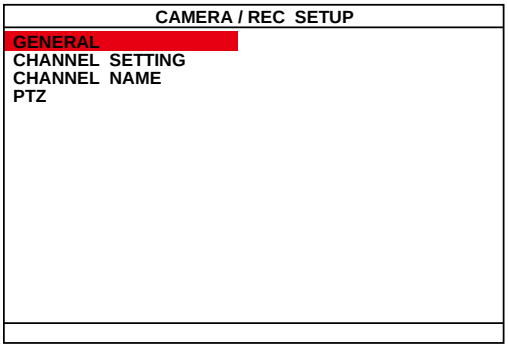
If the unit is currently recording the video, user may have to stop video recording to change the settings.

OSD MENU	Description

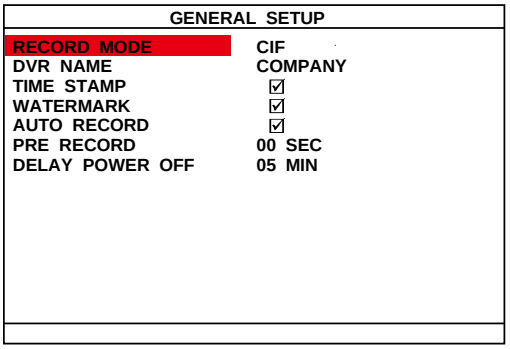


CAMERA/REC

Configure camera parameters, name and PTZ camera.



GENERAL SETUP



RECORD MODE

Select **D1/CIF/HD1** recording mode.
Under **D1** mode, the video recording is in full screen resolution and takes turns from one channel to the next one when Auto Scan enables. Each channel is recorded only at a maximum frame rate of 15fps. User can switch to view the video in single full screen or QUAD screen. Whereas in **CIF** mode, video recording is at a lower resolution, but each video is recorded in 30fps/25fps (NTSC/PAL). User can switch to view the video in single full screen or QUAD screen

DVR NAME

Assign a name for the DVR unit. Maximum is 12 characters that can enter A~Z, 0~9, !, “, #, $, %, &, ‘, (,), *, +, -, /, :, ;, <. >, ?, @, and space.

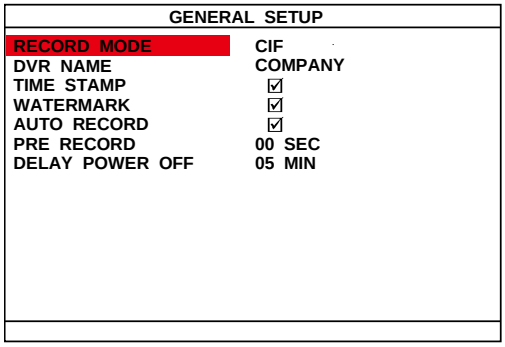
TIME STAMP

Enable/disable the time and date display on the each channel.

WATERMARK

Enable/disable the recorded image authenticates protection. User can use ImageVerificiation application to identify the image that has been watermark protection.

OSD MENU	Description



AUTO RECORD

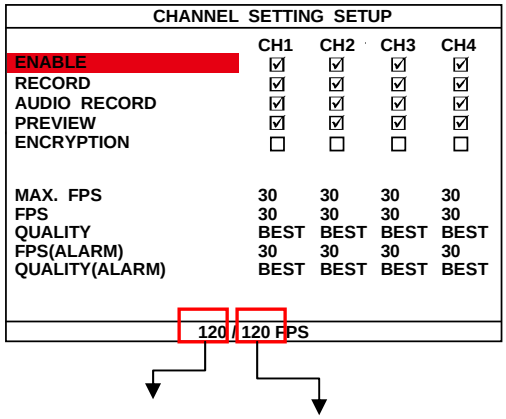
Enable/disable auto continue recording when interrupted (i.e., power breakdown, video playback or configuration setup). It starts to record after 10 second of idleness. This is applicable in Always Record mode.

PRE RECORD

Set the pre-recording time in seconds when alarm has occurred.

DELAY POWER OFF

Set the time for DVR system to power off self after the vehicle has turn off the engine.



Current total fps value that user has set

Total fps value that user can set

CHANNEL SETTING

Configure the parameters of each channel.

ENABLE

Enable/disable the channel to display the video on the surveillance screen. If the channel is disabling, there won't be any video display and recording.

RECORD

Enable/disable the channel number to record video.

The channels are enabled in the INSTALLATION can be set for video recording.

AUDIO RECORD

Enable/disable audio recording. To record sound, make sure the audio input device (ex: microphone) is connected to the DVR unit.

PREVIEW

Enable/disable the video preview on the surveillance screen.

ENCRYPTION

Enable/disable the encryption of channel video. The encrypted video will not able to see while playback and preview in local site and remote site.

MAX. FPS

Display the maximum frame rate of recording that user has set. Maximum fps total value depends on the RESOLUTION that user has chosen.

FPS

Set the number of frames per second to be recorded. The higher the frame rate, it uses more hard disk space.

QUALITY

Select the video quality setting from BEST, HIGH, GOOD, MEDIUM, NORMAL or LOW. Choosing higher quality allows user to record less hours but the quality of the recorded video is better.

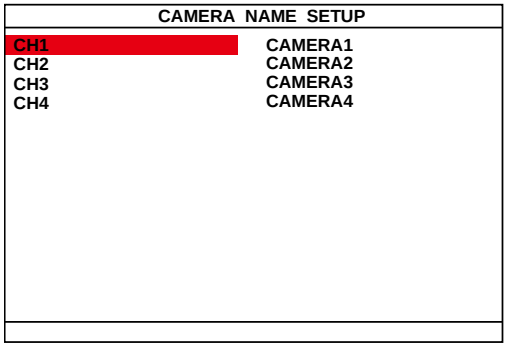
FPS(ALARM)

Set the number of frames per second to be recorded when alarm has occurred. The higher the frame rate, it uses more hard disk space.

QUALITY(ALARM)

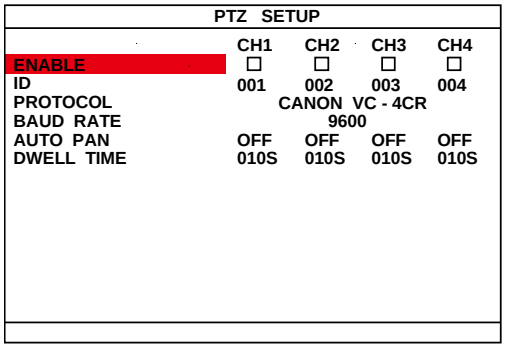
Select the video quality (BEST, HIGH, GOOD, MEDIUM, NORMAL or LOW) of alarm recording. Choosing higher quality allows user to record less hours but the quality of the recorded video is better.

OSD MENU	Description



CHANNEL NAME

Give a name for the channel 1 ~ 4. Maximum is 12 characters and can enter A~Z, 0~9, !, “, #, $, %, &, ‘, (,), *, +, -, /, :, ;, <. >, ?, @, and space.


PTZ SETUP
CH1 CH2 CH3 CH4
ENABLE
ID 001 002 003 004
PROTOCOL CANON VC - 4CR
BAUD RATE 9600
AUTO PAN OFF OFF OFF OFF
DWELL TIME 010S 010S 010S 010S

PTZ SETUP

To enable PTZ camera control by remote control and setup PTZ camera parameters.

ENABLE

Select the channel of PTZ camera. If the PTZ camera is connecting on channel 1, then select the camera 1 for PTZ video to be display on channel 1.

ID

Assign an ID to PTZ camera. The ID range is from 001 to 255 but is limiting by protocol of PTZ camera. Please refer to your PTZ camera user’s manual for more detail of PTZ ID assignment.

We suggest assigning PTZ camera ID star from 5 to avoid conflict with ID of camera channels.

PROTOCOL

Select the protocol of PTZ camera. The protocol will be different that depends on the brand of PTZ camera. The DVR system currently supports 3 protocols — PELCO-D, PELCO-P, and CANON VC-C4R. Please refer to your PTZ camera user manual to make sure which protocol is using for.

BAUD RATE

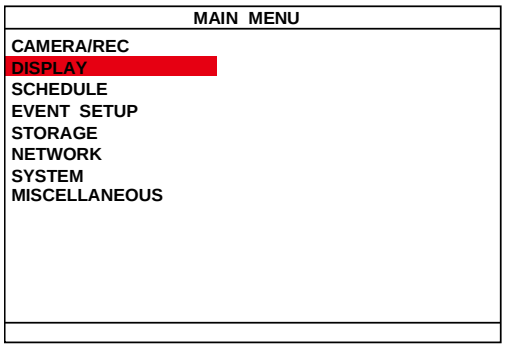
To setup the baud rate of PTZ camera. For more detail, please refer to your PTZ camera’s user manual.

AUTO PAN

Select the preset number to assign an auto move direction for the PTZ camera. For example: 1-4 means the PTZ camera will auto move from preset position 1, 2, 3 to 4.

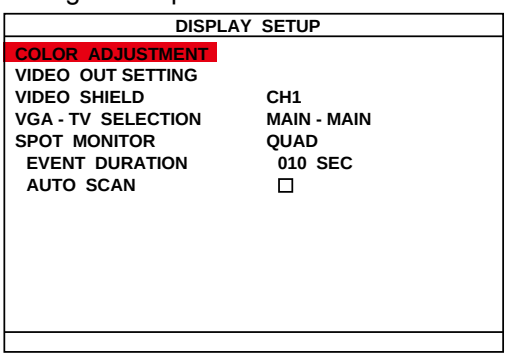
DWELL TIME

Set a time that how long the PTZ camera stays in that position before it moves to the next one.



DISPLAY

Configure the parameters of video and setting of spot monitor.



OSD MENU	Description

DISPLAY SETUP

COLOR ADJUSTMENT	
VIDEO OUT SETTING	
VIDEO SHIELD	CH1
VGA - TV SELECTION	MAIN - MAIN
SPOT MONITOR	QUAD
EVENT DURATION	010 SEC
AUTO SCAN	☐

COLOR ADJUSTMENT

To adjust the brightness, contrast, hue, and saturation value of channel video. To reset the setting, select **RESET TO DEFAULT VALUE**.

COLOR ADJUSTMENT SETUP

	CH1	CH2	CH3	CH4
BRIGHTNESS	124	124	124	124
CONTRAST	121	121	121	121
HUE	001	001	001	001
SATURATION	054	054	054	054
RESET TO DEFAULT	○	○	○	○

VIDEO OUT SETTING

To select the sharpness, color enhancement, VGA mode, resolution of VGA and TV out setting.

VIDEO OUT SETUP

	VGA	TV
SHARPNESS	00	00
COLOR ENHANCEMENT	00	00
VGA MODE	MODE1	-
RESOULTION	SVGA	-

SHARPNESS

Adjust the sharpness of VGA and TV video output.

COLCOR ENHANCEMENT

Adjust the color enhancement of VGA and TV video output.

VGA MODE

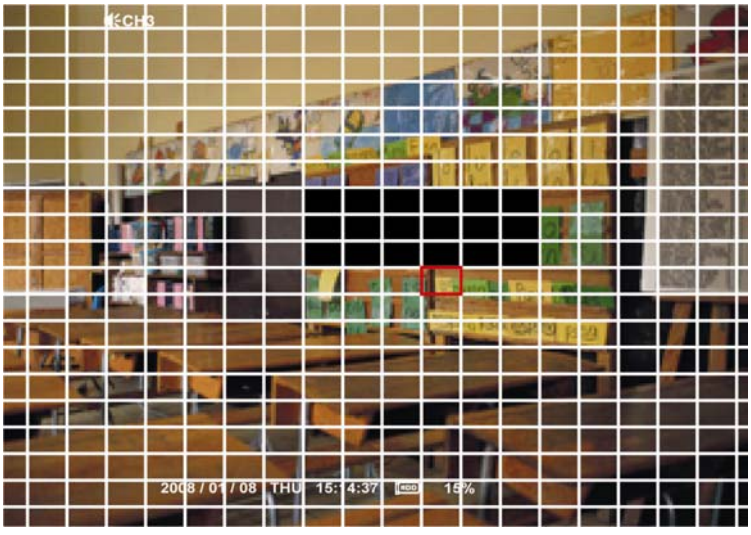
Select the VGA output mode.

RESOLUTION

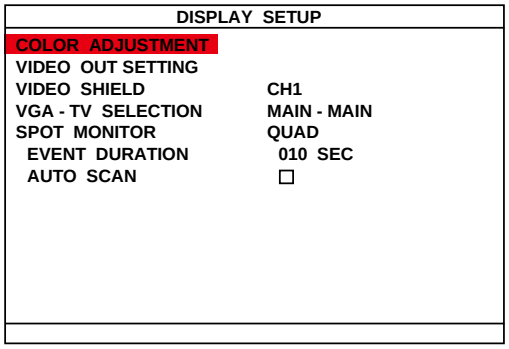
Select the resolution of VGA video output.

VIDEO SHIELD

Select the channel and set an area that will be blocking for particular security issue when DVR unit is recording such as enter password for entrance guard.



OSD MENU	Description



VGA - TV SELECTION

Select the VGA and TV output order.

- **MAIN - MAIN:** Both VGA and TV output surveillance video on screen.
- **MAIN – SPOT:** VGA output surveillance video and TV output the alarm event video.
- **SPOT – MAIN:** VGA output alarm event video and TV output the surveillance video.

SPOT MONITOR

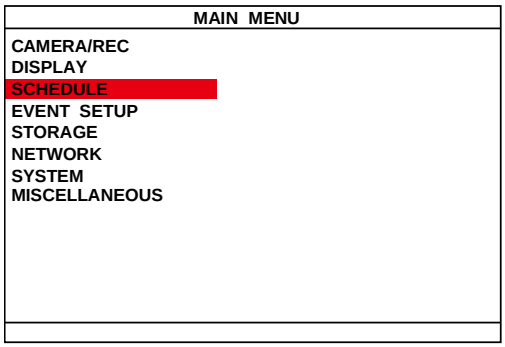
Enable/disable to display channel alarm event in QUAD screen mode or the selected channel (1, 2, 3, or 4) when the sensor is activated or motion is detected. When there are multiple alarm events, DVR system will display the last alarm event.

EVENT DURATION

Set a period time (0 ~ 255 sec) for alarm event to display on screen.

AUTO SCAN

Enable/disable auto cycle switch to display the next channel when in full screen mode.



RECORD SCHEDULE

By default, in 24 hours, the recording schedule is set to always record every hour. Refer to the table below to customize the recording condition.

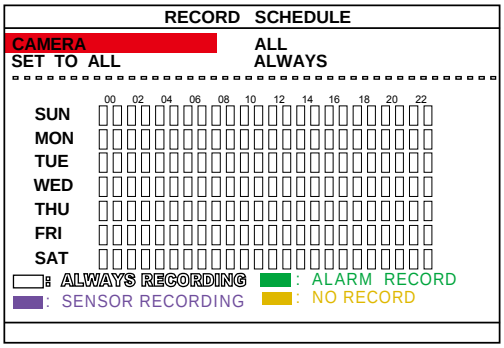
Condition	Description
NO RECORD	Disable video recording.
ALWAYS	Record non-stop.
SMART	Automatically switch to recorded at the maximum frame rate setting once a motion is detected and if there is no motion, it records at the minimum frame rate setting.
ALARM	Start recording when the sensor is activated.

CAMERA

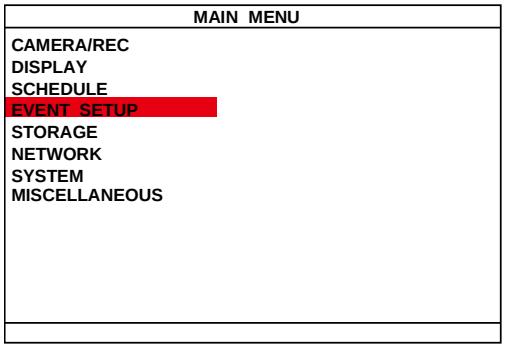
Select a channel (1, 2, 3, or 4) or **ALL** for record schedule setup.

SET TO ALL

Select a recording condition – **NO RECORD**, **ALAWAYS**, **SMART** or **ALARM**. Please refer to the above table for record condition description.

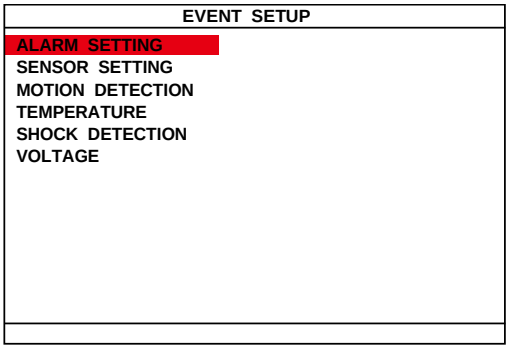


OSD MENU	Description



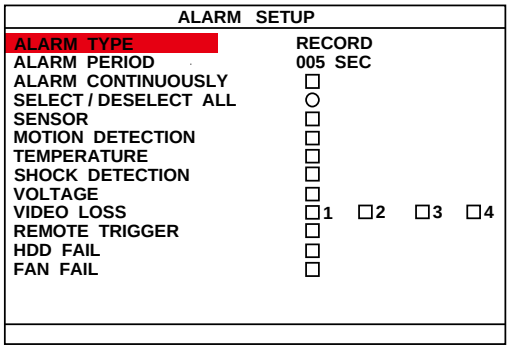
EVENT SETUP

Configure alarm, sensor, motion, temperature, shock, and voltage.



ALARM SETTING

Configure parameters of alarm.



ALARM TYPE

Select the way of alarming – **REC**, **EMAIL**, **GSM**, **BUZZER**, or **RELAY**.

ALARM PERIOD

Set the amount of time (in second) to sending the alarm once triggered.

ALARM CONTINUOUSLY

Set the amount of time (in second) to continue sending the alarm once triggered.

SELECT/DESECLECT ALL

To enable/disable all below selection.

SENSOR

Enable/disable to send out the alarm when sensor has been triggered.

MOTION DETECTION

Enable/disable to send out the alarm when motion has been detected

TEMPERATURE

Enable/disable to send out the alarm when temperature has exceeded the limit that user has setup.

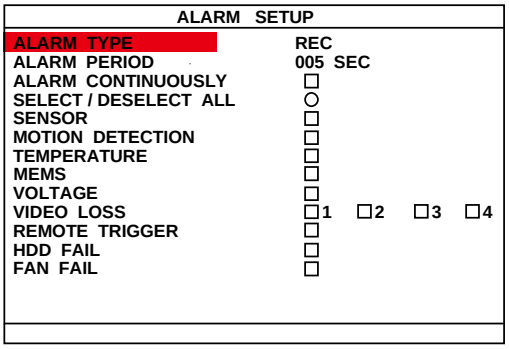
SHOCK DETECTION

Enable/disable to send out the alarm when MEMS has exceeded the range that user has setup in **SHOCK SETUP**.

VOLTAGE

Enable/disable to send out the alarm when voltage has exceeded the limit that user has setup in **VOLTAGE SETUP**.

OSD MENU	Description



VIDEO LOSS

Select the channel that will send out the alarm when video is lost.

REMOTE TIRGGER

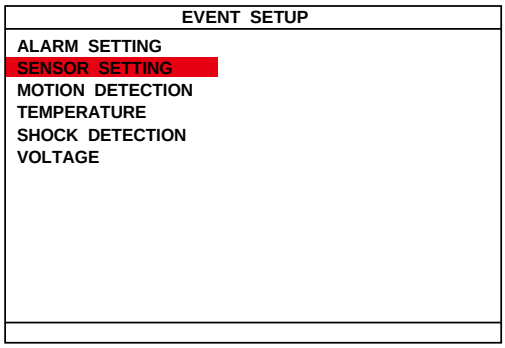
Allow user to trigger alarm from remote site.

HDD FAIL

Enable/disable to send out alarm when hard disk is failed.

FAN FAIL

Enable/disable to send out alarm when fan is broken or doesn't start/stop when temperature is over/lower the limit.



SENSOR

Customize the initial state of the attached sensor.

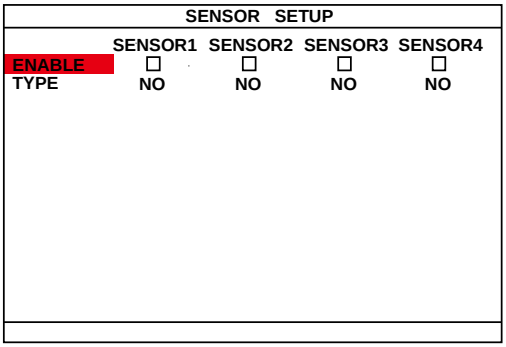
ENABLE

Active/deactivate the sensor.

TYPE

Select the state of the sensor.

- **NO:** Indicates that the initial state of the sensor is normal open. Video recording initiates when there is a changes in the sensor state
- **NC:** Indicates that the initial state of the sensor is normal close. Video recording initiates when there is a changes in the sensor state



OSD MENU	Description

EVENT SETUP
ALARM SETTING
SENSOR SETTING
MOTION DETECTION
TEMPERATURE
SHOCK DETECTION
VOLTAGE

MOTION DECTECION

MOTION DETECTION SETUP

	CH1	CH2	CH3	CH4
ENABLE	☐	☐	☐	☐
SENSTIVITY	5	5	5	5
MASK SETUP	○	○	○	○

ENABLE

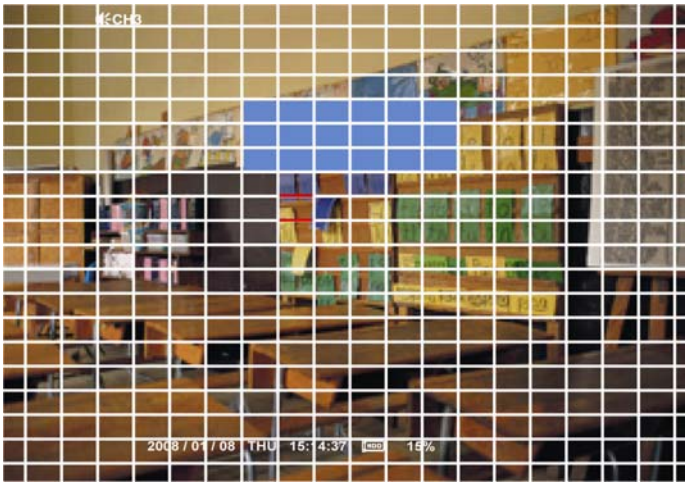
Enable/disable the channel to detect motion.

SENSITIVITY

Set the sensitivity level. The sensitivity is from HI (High), 9~ 2 and LO (Low).

MASK SETUP

Select a specific area for motion recording. The DVR system will start recording when the selected area has been detected motion.



EVENT SETUP
ALARM SETTING
SENSOR SETTING
MOTION DETECTION
TEMPERATURE
SHOCK DETECTION
VOLTAGE

TEMPERATURE

TEMPERATURE SETUP

TEMP. TYPE	°C
FAN ON	050
FAN OFF	040
ALARM THRESHOLD	060/005
HDD STOP	070/005
RESET TO DEFAULT	○

TEMP. TYPE

Temperature pattern display on front LCM panel.

FAN ON

Set a specific temperature limit (45 ~ 100°C) for fan active. When the hard disk temperature reaches temperature limit, the fan will be active.

FAN OFF

Set a specific temperature limit (0 ~ 40°C) for fan stop. When the hard disk temperature reaches temperature limit, the fan will be stop.

OSD MENU	Description

TEMPERATURE SETUP

TEMP. TYPE	℃
FAN ON	050
FAN OFF	040
ALARM THRESHOLD	060/005
HDD STOP	070/005
RESET TO DEFAULT	○

ALARM THRESHOLD

Set the temperature high/low limit (10~100°C/0 ~ 95°C) to prevent DVR unit overheating/overcooling. When DVR unit temperature reaches the high/low limit, the system will show the warning message or send out alarm if the alarm is connected and set.

HDD STOP

Set a specific temperature limit (0 ~ 95°C) for HDD shutdown. When the hard disk temperature reaches the temperature limit, the HDD will shutdown.

RESET TO DEFAULT

Set all configurations back to factory default.

EVENT SETUP

- ALARM SETTING
- SENSOR SETTING
- MOTION DETECTION
- TEMPERATURE
- SHOCK DETECTION
- VOLTAGE

SHOCK DECTION

Set the X, Y, and Z axis value for vehicle slope detection.

MEMS SETUP

X - AXIS	1.0G
Y - AXIS	1.0G
Z - AXIS	1.0G
RESET TO DEFAULT	○

X – AXIS

Set the value of X axis for slope detecting.

Y – AXIS

Set the value of X axis for slope detecting.

Z – AXIS

Set the value of X axis for slope detecting.

RESET TO DEFAULT

Set all configurations back to factory default.

EVENT SETUP

- ALARM SETTING
- SENSOR SETTING
- MOTION DETECTION
- TEMPERATURE
- SHOCK DETECTION
- VOLTAGE

VOLTAGE SETUP

VOLTAGE SETUP

12V THRESHOLD	10.8V
RTC(3V) THRESHOLD	02.7V
SHOUTDOWN SYSTEM	☐
RESET TO DEFAULT	○

12V THRESHOLD

Set a voltage limit for total power supply of cameras.

RTC(3V) THRESHOLD

Set a voltage limit for RTC(real time clock).

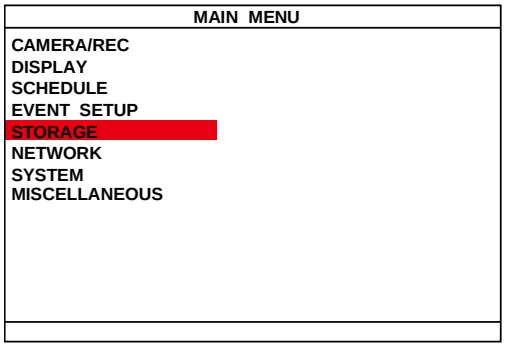
SHOUTDOWN SYSTEM

Enable/disable to shutdown system when the voltage threshold reaches the limit.

RESET TO DEFAULT

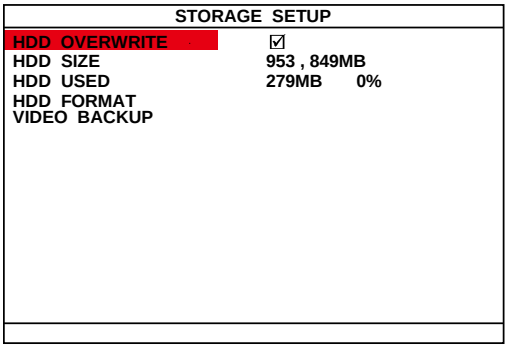
Set all configurations back to factory default.

OSD MENU	Description



STORAGE SETUP

To format hard disk and backup recorded video to external USB storage device(pen drive or external hard disk)



HDD OVERWRITE

Enable/disable replacing the earliest recorded file when the hard disk space runs out. By default, the HDD overwrite setting is enabled.

HDD SIZE

Shows the total capacity of the hard disk.

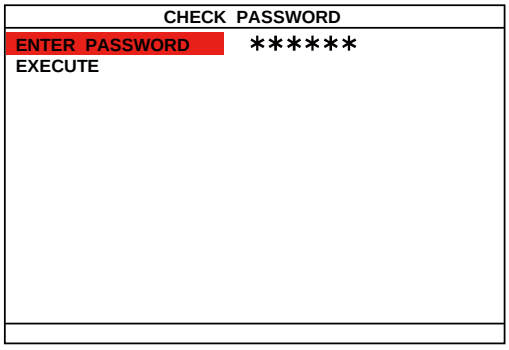
HDD USED shows the amount of space that has been used.

HDD FORMAT

For security purpose, you may have to enter the password to format hard disk.

To format hard disk:

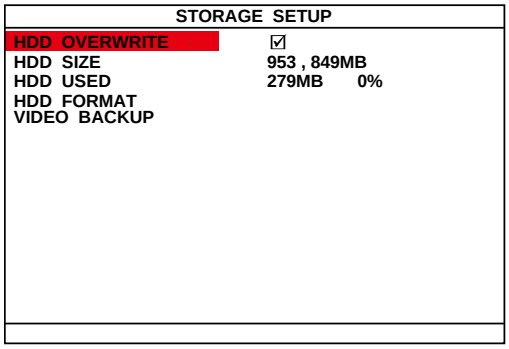
1. Use the ▲ and ▼ buttons to go up and down and select **HDD FORMAT**. Then press ↵.
2. In the **CHECK PASSWORD** screen, press ↵. Then use the ▲ and ▼ buttons to select the security combination number. Press button again to make the selection.
3. To move the selection to the left and right, use ▶, and ◀ buttons.



4. After entering the last number, the "**PASSWORD CORRECT**" appears, you are now authorized to format the hard disk.
5. It is done when the "**FORMAT DISK SUCCESS**" appears.

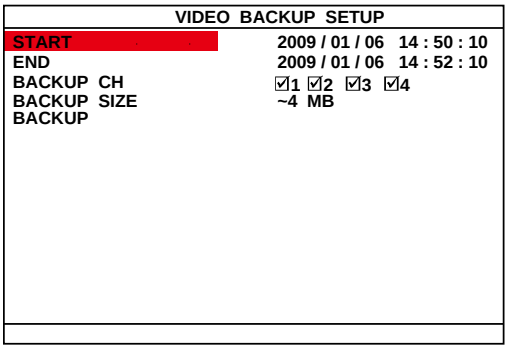
⚠ Formatting the hard disk will permanently delete all the recorded files. The recorded files will be no longer for retrieving.

OSD MENU	Description



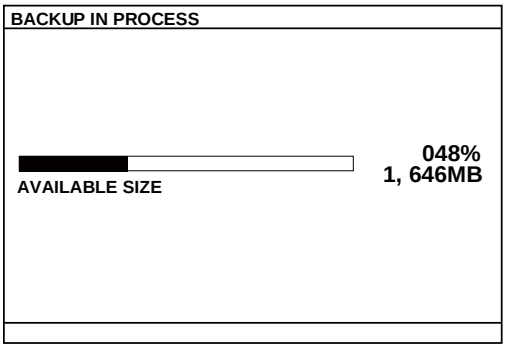
VIDEO BACKUP

To backup the recorded video by selected period.

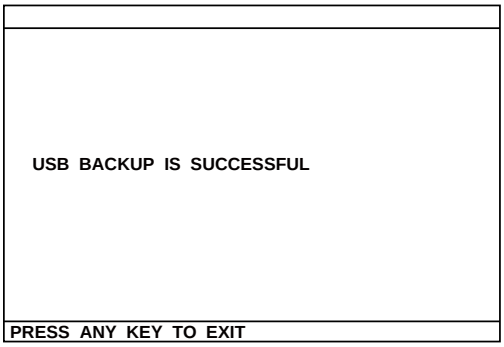


Please plug the pen drive or external hard disk into DVR system before starting backup process.

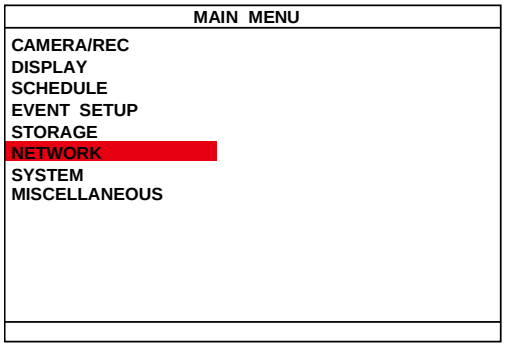
1. Select the **START TIME** and **END TIME** of backup.
2. Select the channels which user wants to backup in **BACKUP CH**.
3. Select the **BACKUP SIZE** to calculate the size of selected backup file.
4. And then, select **BACKUP** and press **YES (ENTER)** to start backup video



5. When backup is done, press any key to back to main menu.

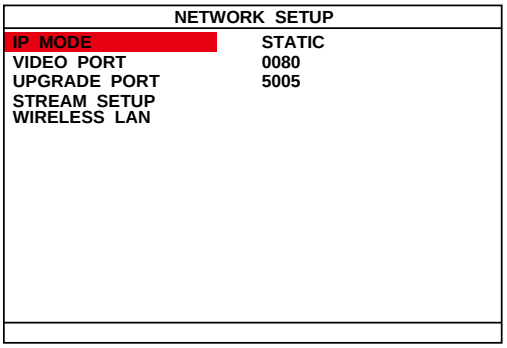


OSD MENU	Description



NETWORK SETUP

Setup the network parameters for the internet or intranet remote monitor or playback.



IP MODE

The system provides 3 types of IP setup mode – STATIC, DHCP, and PPPOE.

- **STATIC:** Assigns a constant IP address for the DVR system.
- **DHCP:** Assign the IP address by local DHCP server to DVR system.

> The DHCP (Dynamic Host Configuration Protocol) is a set of rules used by a communications device (such as a computer, router or networking adaptor) to allow the device to request and get an Internet address from a server which has a list of addresses available for assignment

- **PPPOE:** Point-to-Point Protocol over Ethernet is a network protocol for encapsulating PPP frames in Ethernet frames. It is used mainly with ADSL services. If your network is using ADSL service connecting to internet, and then, select PPPOE mode.

VIDEO PORT

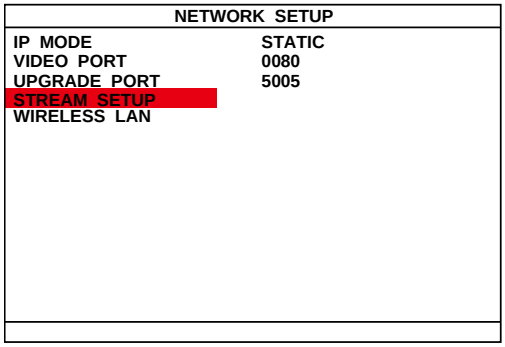
A port for the remote connection. Any port can be assigned as a video port, except the ports already used by the network services. The default video port is 80.

UPGRADE PORT:

A port for the remote update DVR system firmware. Any port can be assigned as an upgrade port, except the ports are already used by the network services. The default upgrade port is 5005. **For Upgrading DVR firmware, please contact your local dealer**.

> Please **DO NOT** cut off the power of the DVR system while the firmware is upgrading. Power failure will cause the permanent damage of the DVR system.

OSD MENU	Description



STREAM SETUP

Configure the network stream of channel.

ENABLE

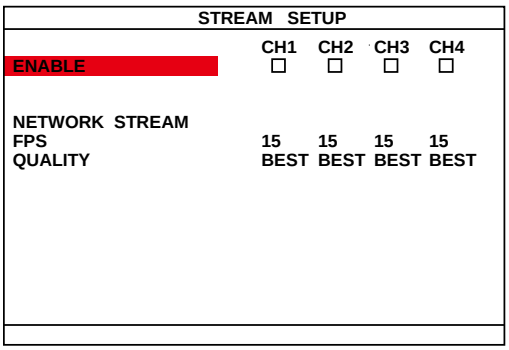
Enable/disable the stream setup of channel.

FPS

Set the frame rate of stream.

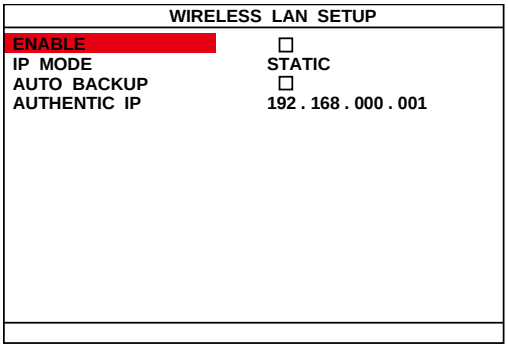
QUALITY

Select the quality for stream recording.



WIRELESS LAN

To configure the wireless parameters.



ENABLE

Enable/disable the wireless function.

IP MODE

Select the IP mode of wireless – STATIC, PPPOE, or DHCP.

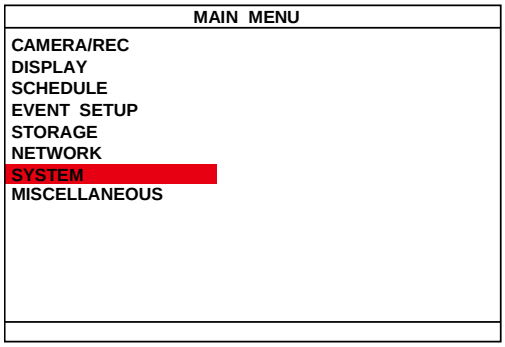
AUTO BACKUP

Enable/disable to auto backup recorded video that was recorded through wireless LAN.

AUTHENTIC IP

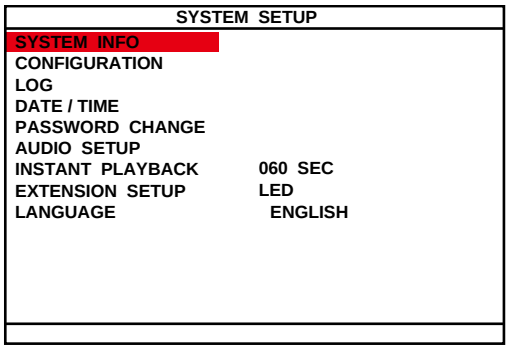
Assign an IP address for DVR system that uses in wireless LAN.

OSD MENU	Description



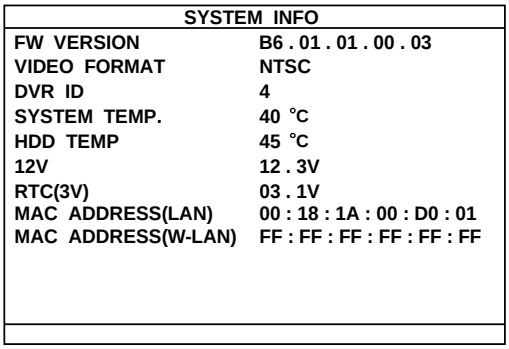
SYSTEM SETUP

To configure the parameters that relate with DVR system.



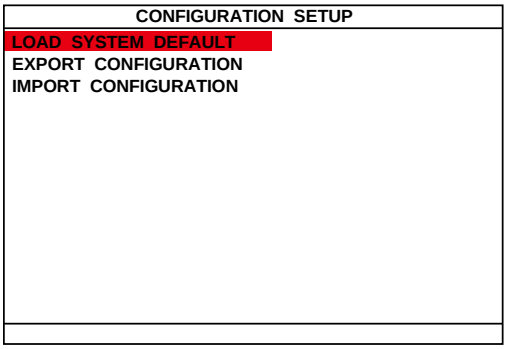
SYSTEM INFO

Display system software version, video system type, ID of DVR, system and hard disk temperature, total voltage of power supply for all cameras, and RTC voltage.


SYSTEM INFO
FW VERSION B6 . 01 . 01 . 00 . 03
VIDEO FORMAT NTSC
DVR ID 4
SYSTEM TEMP. 40 ℃
HDD TEMP 45 ℃
12V 12 . 3V
RTC(3V) 03 . 1V
MAC ADDRESS(LAN) 00 : 18 : 1A : 00 : D0 : 01
MAC ADDRESS(W-LAN) FF : FF : FF : FF : FF : FF

CONFIGURATION

Backup and resort the DVR system setting.



LOAD SYSTEM DEFAULT

Set whole system back to factory default. Please restart DVR after default value has loaded.

EXPORT CONFIGURATION:

Backup the current DVR system setting to USB storage device such as pen drive or external hard disk. Plug in the USB storage device before starting to save the configuration. Please restart DVR after default value has loaded.

IMPORT CONFIGURATION:

To restore the previous saved DVR system setting from USB storage device such pen drive or external hard disk. Please restart DVR after default value has loaded.

OSD MENU	Description

SYSTEM SETUP

SYSTEM INFO	
CONFIGURATION	
LOG	
DATE / TIME	
PASSWORD CHANGE	
AUDIO SETUP	
INSTANT PLAYBACK	060 SEC
EXTENSION SETUP	LED
LANGUAGE	ENGLISH

LOG SETUP

To search event log.
Select the SEARCH TIME and select SEARCH EXECUTION to start searching. The search result will be list out. User can select the log to view but some of logs are not viewable.

LOG LIST

SEARCH TIME	: 2009 / 01 / 07 10 : 00 : 00
SEARCH EXECUTION	
2009 / 01 / 07 10 : 41 : 02	VIDEO LOSS - 4
2009 / 01 / 07 10 : 41 : 02	VIDEO LOSS - 3
2009 / 01 / 07 10 : 41 : 02	VIDEO LOSS - 2
2009 / 01 / 07 10 : 41 : 02	VIDEO LOSS - 1
2009 / 01 / 07 10 : 40 : 32	VIDEO LOSS - 4
2009 / 01 / 07 10 : 40 : 32	VIDEO LOSS - 3
2009 / 01 / 07 10 : 40 : 32	VIDEO LOSS - 2
2009 / 01 / 07 10 : 40 : 32	VIDEO LOSS - 1
2009 / 01 / 07 10 : 40 : 02	VIDEO LOSS - 4
2009 / 01 / 07 10 : 40 : 02	VIDEO LOSS - 3

1-5

SYSTEM SETUP

SYSTEM INFO	
CONFIGURATION	
LOG	
DATE / TIME	
PASSWORD CHANGE	
AUDIO SETUP	
INSTANT PLAYBACK	060 SEC
EXTENSION SETUP	LED
LANGUAGE	ENGLISH

DATE FORMAT

Select the display format of the date -- YYYY/MM/DD, MM/DD/YYYY, or DD/MM/YYYY

DATE

Set the current date

TIME

Set the current time

AUTO SYNC TIME

Enable/disable time synchronization automatically through network. The DVR system will auto synchronize time from NTP servers. When the daylight saving is enabling, the auto time synchronization will be stopped.

TIME ZONE

Select the time synchronization time zone. The time zone will base on GMT (Greenwich Mean Time) time zone.

LAST SYNC TIME

Display the latest time synchronization date and time.

DAYLIGHT SAVING

To enable/disable daylight saving function.

START

Setup daylight startup date and time.

END

Setup daylight stop date and time.

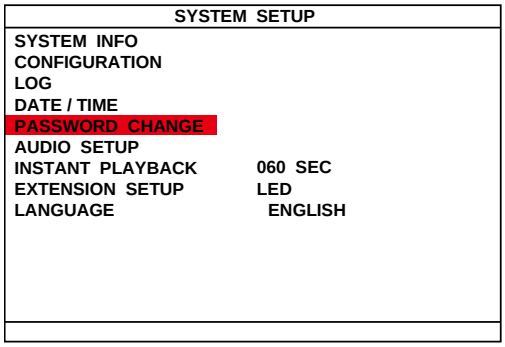
TIME OFFSET

Assign a time that it is for daylight saving time offset in your time zone. For example: if the time zone is in U.S. Eastern, the time offset is 1 hour.

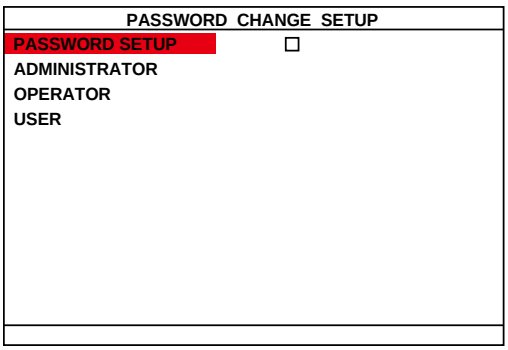
DATE / TIME SETUP

DATE FORMAT	YYYY/MM/DD
DATE	2009 / 01 / 06
TIME	15 : 19 : 09
AUTO SYNC	☐
TIME ZONE	GMT +08 : 00
LAST SYNC TIME	2009 / 01 / 01 00 : 00 : 00
DAYLIGHT SAVING	☐
START	2009 / 01 / 01 00 : 00 : 00
END	2009 / 01 / 01 00 : 00 : 00
OFFSET	00 : 00

OSD MENU	Description



PASSWORD CHANGE



Enable/disable full system password protection. This would prevent unauthorized user to stop video recording, change system settings and formatting the hard disk.

	Default Password	Authority
ADMIN	111111	All
OPERATOR	111111	Preview/Playback/Remote access(preview/playback)
USER	111111	Preview/Remote access(preview only)

ADMINISTRATOR

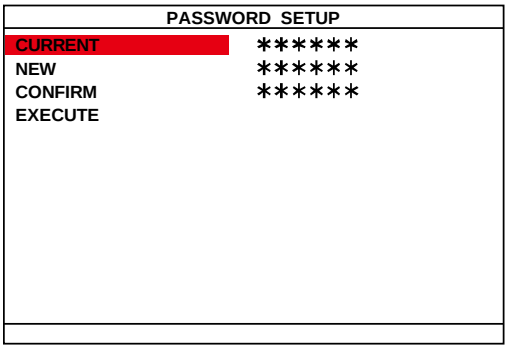
Administrator has the authority of formatting hard disk, changing system settings, remote monitor the DVR system and changes the system settings. The factory default password is 111111.

OPERATOR

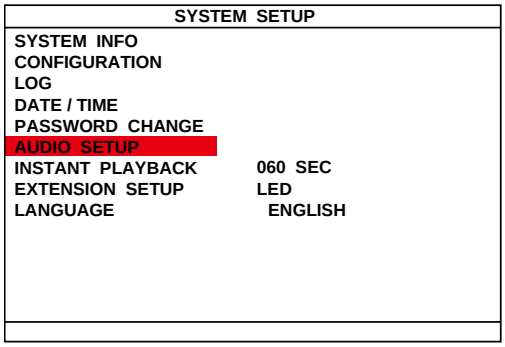
The login account for remote connection through the internet. User account only can view and playback recorded video by Web viewer (ex: Internet Explorer), but no authority to change the DVR system's setting. The factory default password is 111111.

USER

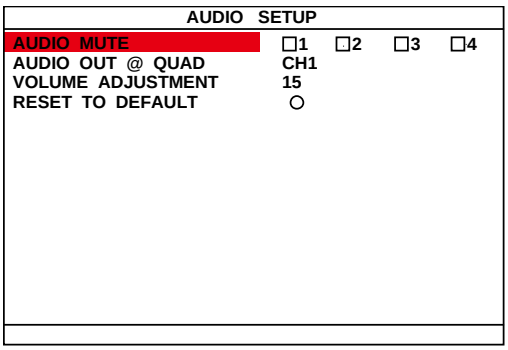
The login account for general user. No superuser authority but can preview live video. The factory default password is 111111.



OSD MENU	Description



AUDIO SETUP



AUDIO MUTE

Enable/disable to hear audio sound while playback. To hear sound, make sure the unit is connected to a speaker.

If you want to hear the voice when you playback the recorded file on this DVR, please make sure that you have selected Audio Mute Off.

AUDIO OUT

Select the channel to output the audio signal While QUAD mode. Please make sure the audio output device (such as a speaker) is connected to DVR unit.

Audio output device has its own power supply is necessary.

VOLUME ADJUSTMENT

To adjust audio output volume.

RESET TO DEFAULT

Set all configurations back to factory default.

INSTANT PLAYBACK

To set the time in seconds for automatically playback the video that has just recorded.
LANGUAGE
Display the current system language.

EXTENSION SETUP

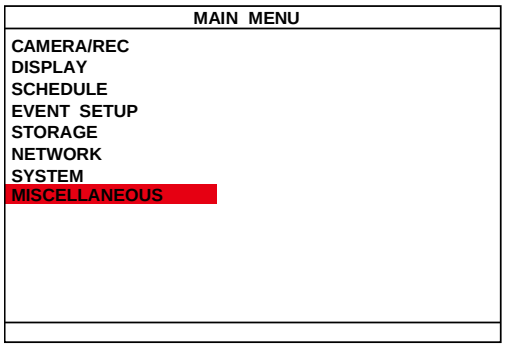
The DVR unit provides a port to connect a extended line for system LED indicator or IR receiver. It is convenient for user to easily indicate the DVR unit status or remote control the DVR unit when the DVR unit is installed at hide place. Select LED for extended LED indicator line or IR for extended remote control receiver line.

The external LED indicator line is optional. The external IR receiver line is included in package contents.

LANGUAGE

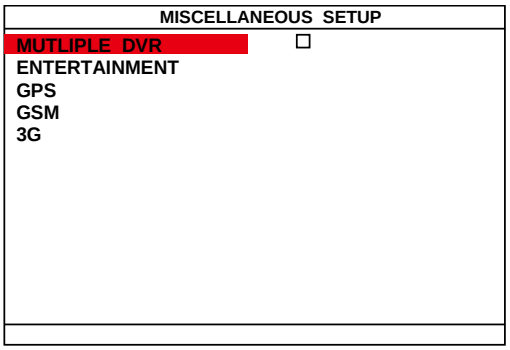
Display the language of the system

OSD MENU	Description



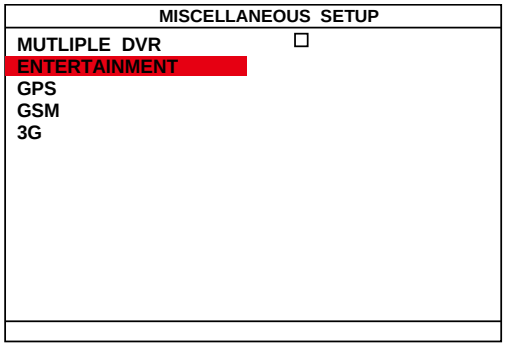
MISCELLANEOUS SETUP

To setup multiple control, entertainment, GPS, GSM, and 3G function.



MUTLIPLE DVR

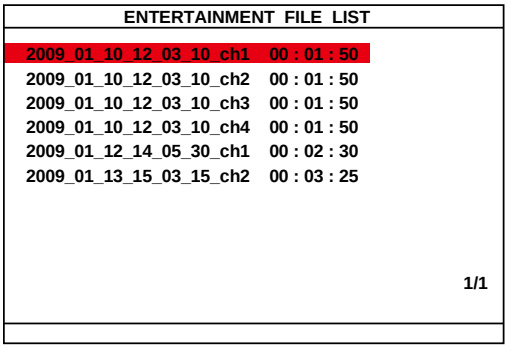
Enable/disable multiple DVR system remote control. When user has more than one DVR system, user can use **MULTIPLE DVR** function to control all DVR system by single remote control.



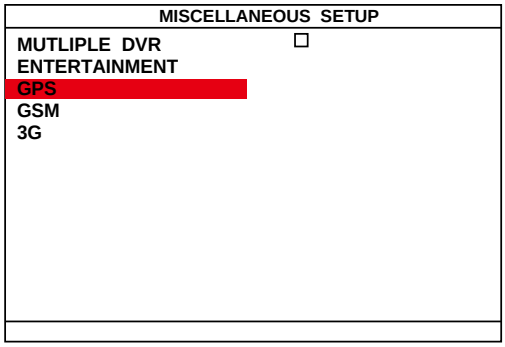
ENTERTAINMENT

Backup recorded file to USB storage device and playback on MOB DVR. MOB DVR system only can recognize the file that backup from DVR and in *.avf format.

1. Create a folder name "**avi**" in the USB storage device and save the backup recorded file in avi folder.
2. Plug the USB storage device into USB port of DVR.
3. Press to call out OSD menu.
4. Select **SYSTEM** → **ENTERTAINMENT** and press
5. The recorded files have been detected by DVR system will display on screen.
6. Select the file and press to start playback.
7. The DVR system will cycle switch to playback all files automatically. Between each file play, system will stop for 1~2 seconds.
8. While the file is playback, recording is allowed.

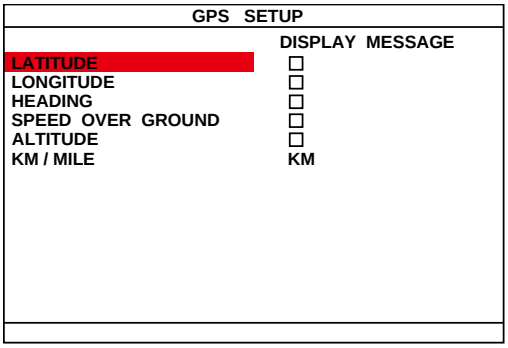


OSD MENU	Description



GPS SETUP

To enable/disable GPS information message display on surveillance screen.



LATITUDE

Enable/disable to display latitude information on surveillance screen.

LONGITUDE

Enable/disable to display longitude information on surveillance screen.

HEADING

Enable/disable to display heading information on surveillance screen.

SPEED OVER GROUND

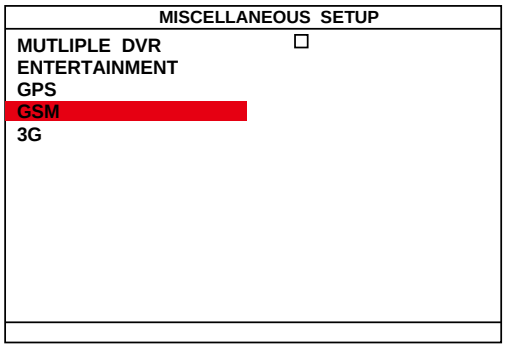
Enable/disable to display speed information on surveillance screen.

ALTITUDE

Enable/disable to display altitude information on surveillance screen.

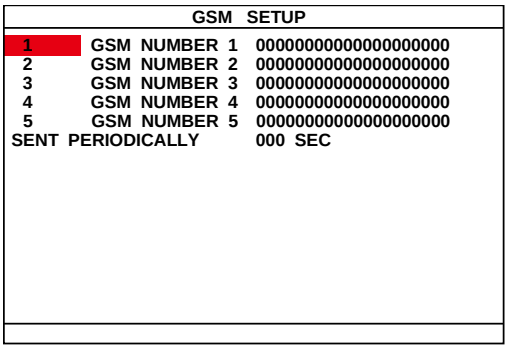
KM/MILE

Select the distance format – KM(kilometer) or MILE



GSM SETUP

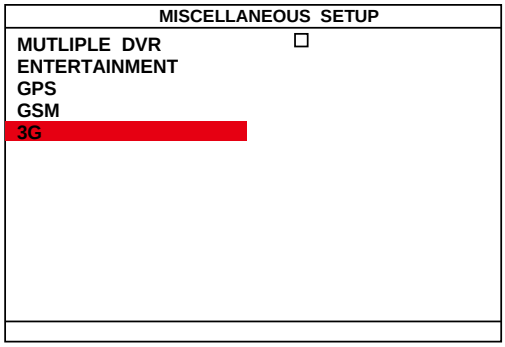
To setup the GSM numbers for alarm inform if user has enable GSM alarming function in **ALARM SETUP**.



Total 4 numbers can be entered.

SENT PERIODICALLY

Set the time in seconds for raptly sending alarm message to the number that user has setup.

OSD MENU	Description
	**3G SETUP**

Chapter 4 Using the USB Playback Console

4.1 Recommended system requirements

- ☐ Pentium®4 2.4GHZ or above
- ☐ Windows®2000/ XP/Vista
- ☐ DDR 256 MB
- ☐ Graphic function must support DirectDraw
- ☐ Audio card or built-in
- ☐ Speaker
- ☐ 1 available USB2.0 port

4.2 Installing the USB Playback Console

To install the USB Playback Console:

1. Place Installation CD into the CD-ROM drive. When the installation main screen appears, click **Install USB Playback Console** and then follow the on screen instructions

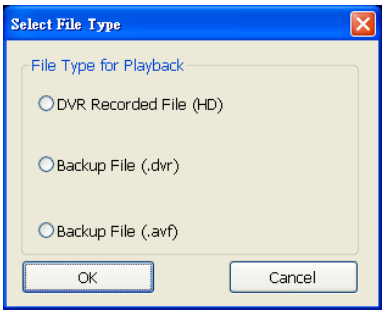
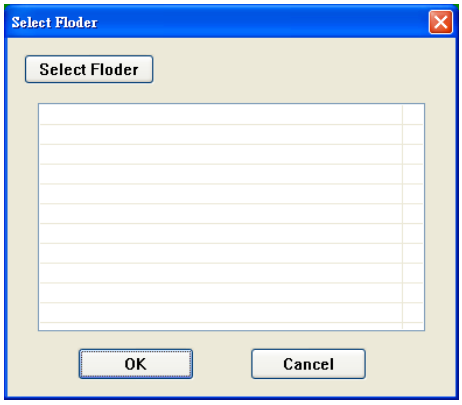
2. Select the language you prefer

3. Click **OK** to install the application
4. Click **Exit** to close the installation main screen.
5. You may now connect the external USB storage device that has saved recorded files to PC.

4.3 Running the USB Playback Console

To run the application, click the icon on the PC desktop

Name	Function
(1) Split Screen Mode	Select from different screen view to playback the recorded video file of the entire camera or one camera on screen.
(2) Exit	Close the application.
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour button	Select and click to playback the recorded video file on the specific time frame.
(5) Playback Controller	**Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame by frame. **Slower:** Play the recorded video file at the speed of 2x, 4x, 8x, 16x, or 32x. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 1/2x,1/ 4x,1/8x,16x, or 1/32x **Next:** Go to the next frame by frame. **End:** Go to the end of the recorded video file.

Name	Function
(6) Archive	To select the video file source for playing.  – **DVR Recorded File (HD):** To playback the recorded video from the hard disk which was recording video on the DVR system. (see also Chapter 4.3.2) – **Backup File(.dvr):** The file is backup and save in *.dvr file format. (see also Chapter 4.3.3) – **Backup File (.avf):** The file is backup and save to external USB storage device in *.avf format. Select the file source folder and click **OK** to playback. 
(7) Status bar	Display the recorded date, time and play speed.
(8) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(9) Language	To switch DVR application UI language.
(10) Adv. Function	Advanced function is including : ■ **HDD Backup:** to call out HDD Backup application. (see also Chapter 4.3.4) ■ **iEnhance:** to call out iEnhance application. (see also Chapter 6) ■ **AVF to AVI:** save *.avf file format as *.avi file format.
(11) Export	Export includes Snapshot, Print, and Output Video Clip function. ■ **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format. ■ **Print:** Print the screen shot. ■ **Output:** Save the segmented file in *.avi format
(12) Segment	Keep a portion of the recorded video (see also Chapter 4.3.1)
(13) Full screen	Use the entire area of the screen to only display the video. To return, press the right button of the mouse or **ESC** on the keyboard. When you switch to full screen in multiple-screen mode, Left click to toggle to only display one of the video in the multiple-screen mode or all.
(14) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second(see also Chapter 4.3.5)
(15) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function.
(16) Event Search	Search from the recorded activities that take place in the system (i.e., Sensor, Motion, Video Loss, POS)(see also Chapter 4.3.6)
(17) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 4.3.7)
(18) Sound /Sound bar	Turn on and off the sound Increase and decrease the volume

Name	Function
(19) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.
(20) Watermark	- When playback ***.dvr** file, click watermark button to verify the correction of playback video. - When playback file from **hard disk** and ***.avf** file, click watermark to call out ImageVerification application. (see also Chapter 5)

4.3.1 To Cut and Save the Portion of the Recorded Video

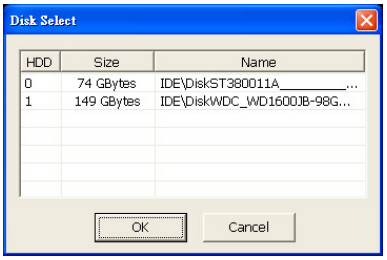
1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click **Segment** to set the begin mark.

2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click **Segment** to set the end mark. To cancel segmentation, click **Segment** button again.

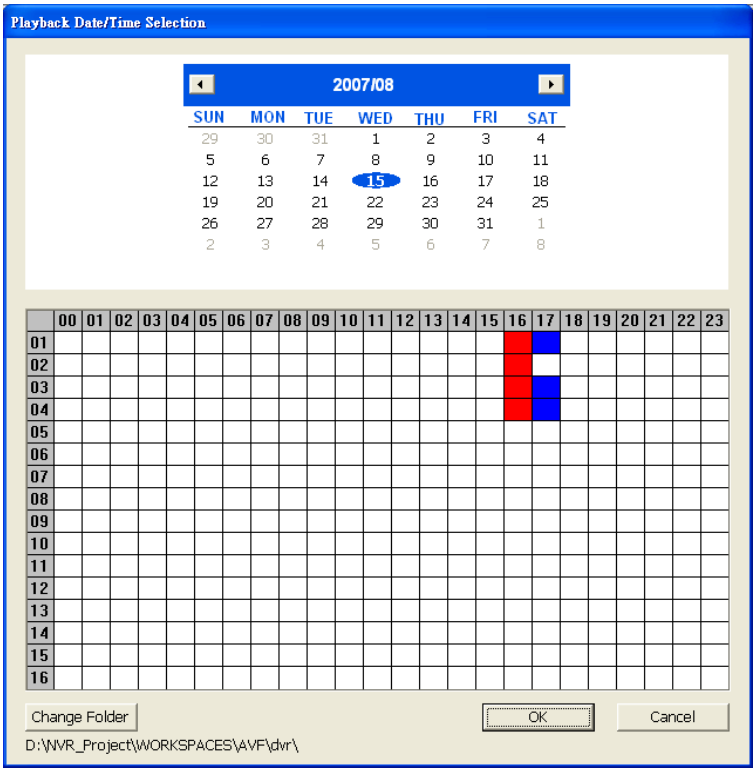
3. Click **Output** button to save the wanted portion.
4. In the **Save As** dialog box, locate on where user wants to save the file, type the filename, and select the video format.

4.3.2 Playback DVR Recorded File from Hard Disk

1. Please have the hard disk which containing of recorded video data install on your PC or using external USB enclosure to connect to your PC.
2. Click **Archive** button
3. Select **DVR Recorded File(HD)** and click **OK**.
4. Select the hard disk drive from **Select Disk** window and click **OK**.



5. And then, Playback Date/Time Selection window appears. Select the date and time and click **OK**.

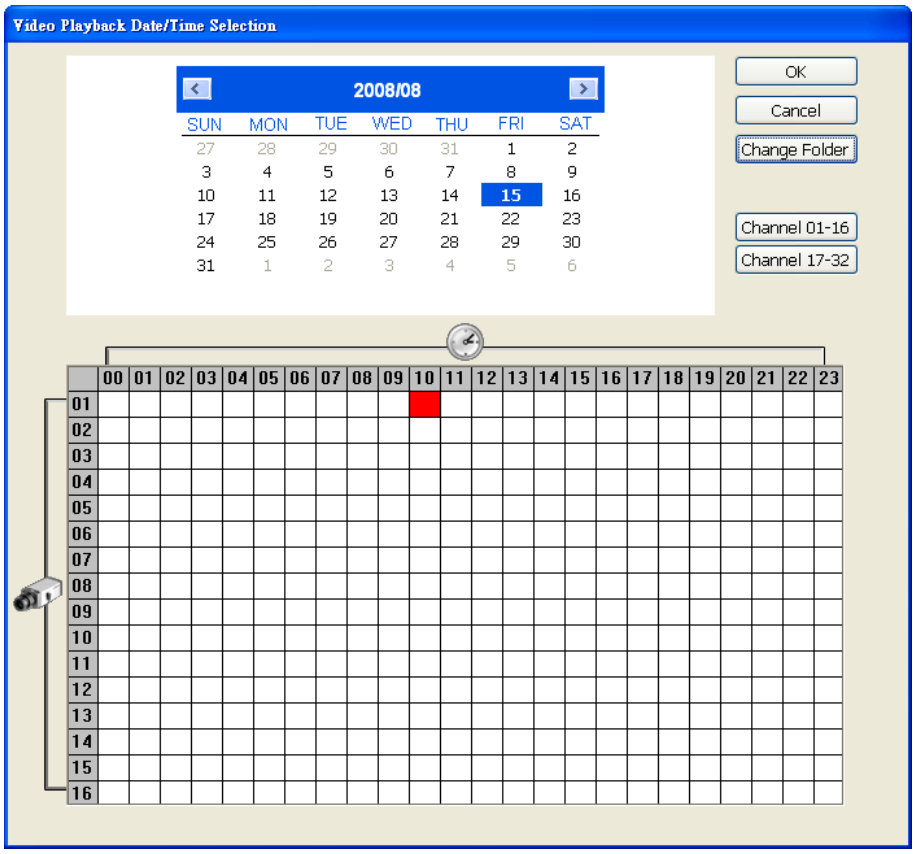


4.3.3 Playback Backup File(*.dvr)

- Click **Archive** button.
- Select **Backup File(*.dvr)** and click **OK**.
- Locate the backup file folder and click **OK**.

When open the backup video file, just locate the where backup file folder is.

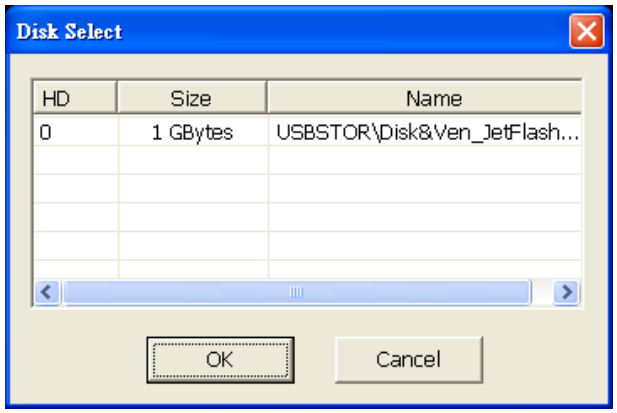
- Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file.
  - **Change Folder:** To select different playback file form other folder location.
  - **Channel 01~ 16&Channel 17 ~ 32:** Switch to different channel group of playback calendar if the camera channel is more than 16 channels.



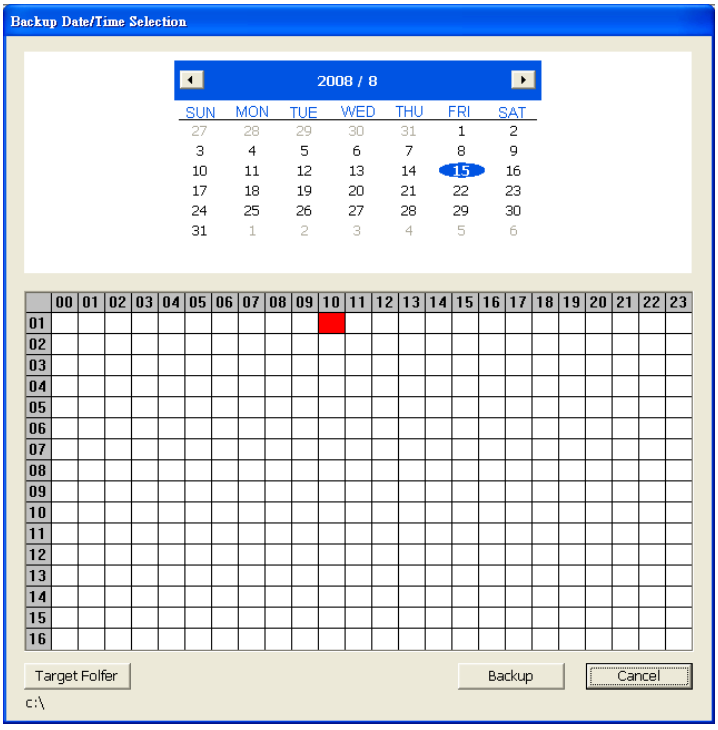
4.3.4 To Backup Recorded File

HDD backup function allows user to backup recorded file from hard disk.

1. Click **Adv. Function** → **HDD Backup** on USB Playback Console UI.
2. Select the source hard disk.



3. In Backup date/time selection windows, select the date and time. 00-24 represents hours and 01-16 represents channels. Blue block means there has recorded file. Red block means the block has been selected. User can click-and-drag the select multiple block at once.



4. Click **Backup** to start backup file.
5. When backup complete, the complete information windows will display.

4.3.5 To Search Using the Visual Search

1. Click **Visual Search**.
2. In the Visual Search Setting dialog box, select the Camera number and the date. Then click **OK**.

3. When a series of frames appear by date, click on the frame to display another series of frames and search by every Hour of that date, every 3Minutes of that hour, every 10 Seconds of that minute, every Second of that 10 seconds. To go back, click. To view from the selected frame and close event search, click.

4.3.6 To Search Using the Event Search

1. Click on the video screen on where you want to search.
2. Click **Event Search**. The Event Search text (red) would appear at the lower left corner of the screen.
3. In the Event Search Setting dialog box, check the type of condition you want to search. If you select POS, in the Find Text box, type the word. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching click .
4. You may also set to search and list all the result. Just check the **Output Event List** box. In the Search Duration section, set the **Begin Time**, **End Time** and **Searching Interval**. Then, click **OK** to start searching.
5. When the Event list appear, click and select the item you want to view.

4.3.7 To Search Using the Intelligent Search

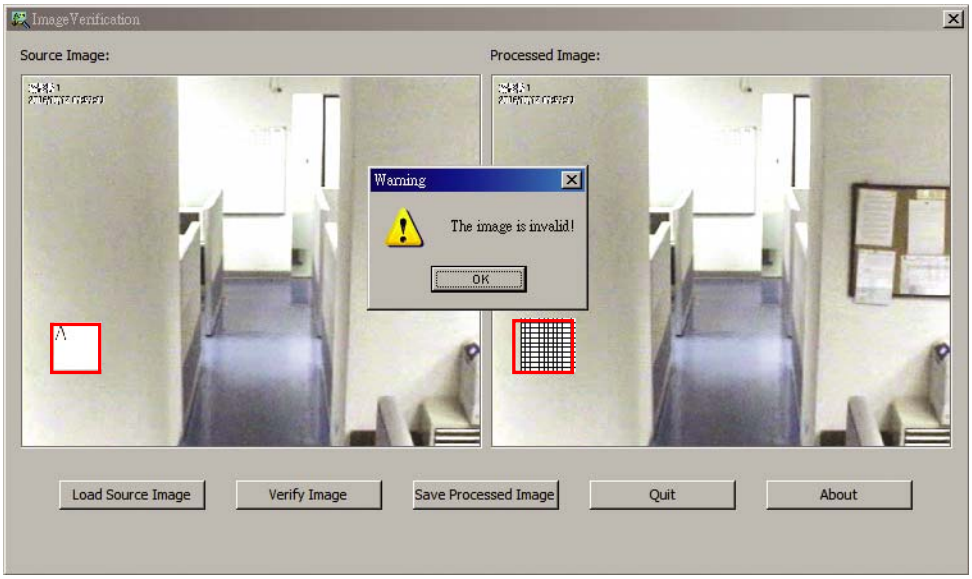
1. Click on the video screen on where you want to search.
2. Click **Intelligent Search**. The Intelligent Search text (red) would appear at the lower left corner of the screen.
3. When the Intelligent Search Setting dialog box and motion detector frame appear, you may adjust the sensitivity bar and the motion detector frame size and location. To set motion detector frame size and location, left click and drag on the screen. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching click .
4. You may also set to search and list all the result. Just check the **List** box. In the Search Duration section, set the **Begin Time**, **End Time** and **Searching Interval**. Then, click **OK** to start searching

Chapter 5 ImageVerification

Image Verification is a watermark-checking program to identify the authenticity of a saved image (e.g. by snapshot). This program can only verify uncompressed bmp image files.

5.1 To Run the ImageVerification

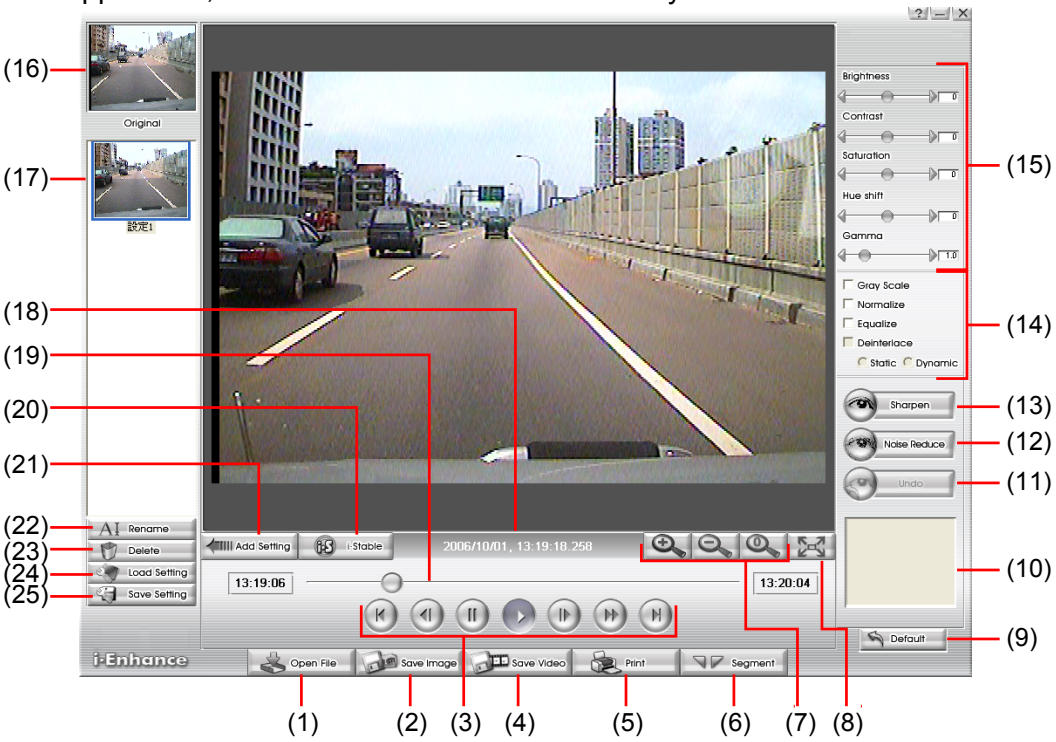
1. To run the ImageVerification application, click the **Watermark** button on USB Playback Application main interface.
2. In the ImageVerification screen, click **Load Source Image** and locate the image source.
3. Click **Verify Image** to begin the process.
4. Check the result in the **Processed Image** screen. If the picture is unmodified, the image in the **Source Image** and **Processed Image** screen would be exactly the same. If the picture is being modified, a warning dialog box would prompt and the modified area is highlighted.



Chapter 6 iEnhance

The bundled iEnhance is a video editing tool and can only be used with *.dvr video file. It allows you to adjust the video picture quality, segment and save the selected portion of the video, zoom in and out the image, and print or save the screen shot. You can also save the setting and apply it on other files.

To run iEnhance application, click **iEnhance** button on USB Playback Console interface.



Name	Function
(1) Open File	Access *.dvr and *.avf video file.
(2) Save Image	Capture and save the screen shot in *.bmp format.
(3) Playback Control Buttons	**Begin:** Move at the beginning of the video file. **Previous:** Go back to previous frame. **Pause:** Briefly stop playing the video file. **Play:** Play the video file. **Faster:** Play the video file at the faster speed. **Next:** Go to the next frame. **End:** Go to the end of the video file.
(4) Save Video	Save the edited or segmented video in *.avi format.
(5) Print	Print the screen shot.
(6) Segment	Mark the beginning and the end of the selected portion of the video. Two triangle marks will appear on the slider. To cancel video segmentation, click this button again.
(7) Zoom Buttons	Enlarge, reduce, and set the image back to normal size.
(8) Full Screen	Use the entire screen to only display the video.
(9) Default	Set the video back to original state and delete all the changes in the history box.
(10) History Box	List all the actions.
(11) Undo	Delete the last action.
(12) Noise Reduce	Adjust the softness and repair the damaged colours.
(13) Sharpness	Improve the overall image by enhancing edges. This gives the image more depth.

Name	Function
(14) Effects	Gray Scale: convert the image into black and white (monochrome). Normalize: adjust the brightness intensity. Equalize: automatically adjust the images that are too dark. De-interlace: smooth out the overlying frames. Static: de-interlace for motionless scene. Dynamic: de-interlace for moving scene.
(15) Picture Adjustment	Adjust the Brightness, Contrast, Saturation, Hue and Gamma.
(16) Original Screen	Display the original state of the image.
(17) Temporary Setting Block	Display the sample settings. Click the sample to apply the setting on the current video.
(18) Status Bar	Display the date, and time of the video.
(19) Progress Bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(20) iStable	To reduce the jolt in the recorded video.(also see Chapter 7.1)
(21) Add Setting	Include the new setting to the temporary setting block.
(22) Rename	Change the name of the selected setting in the temporary setting block.
(23) Delete	Permanently remove the selected setting in the temporary setting block.
(24) Load Setting	Call the saved settings.
(25) Save Setting	Store the settings in the temporary setting block.

6.1 To Use iStable

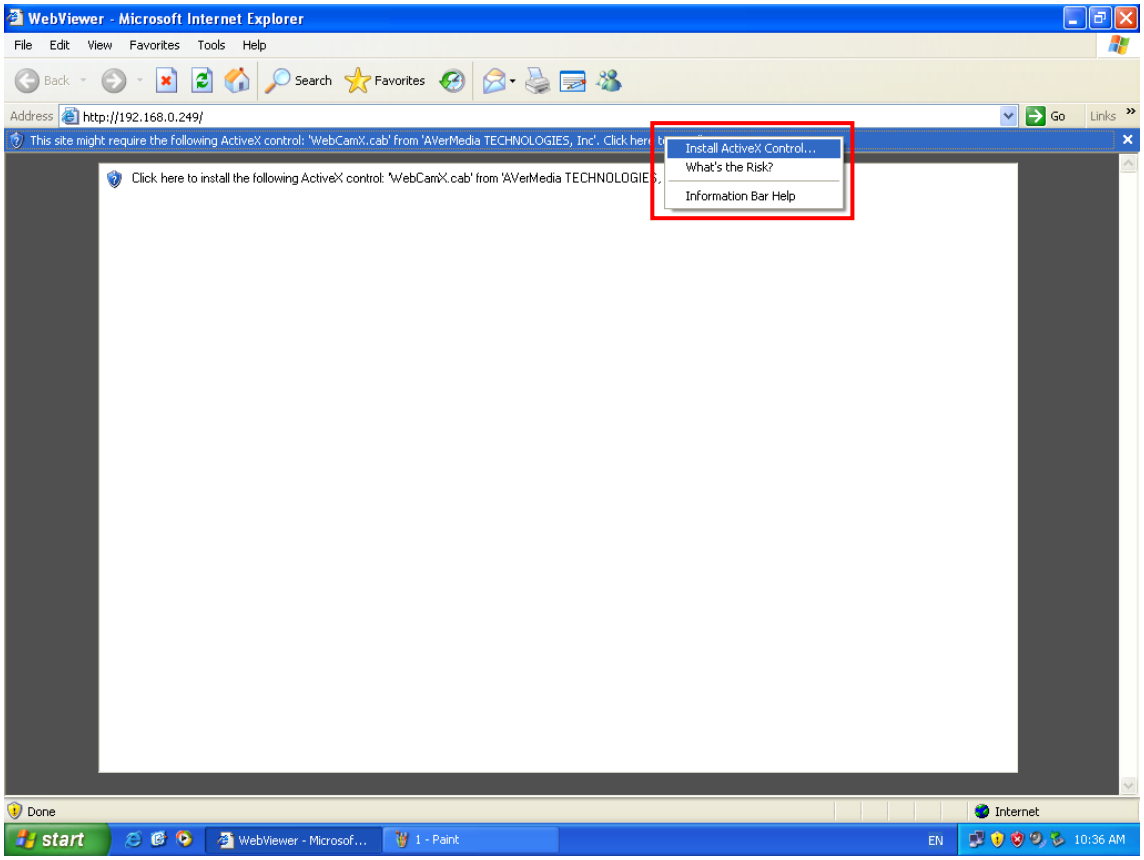
The iStable function can reduce the jolt in the recorded video.

1. Click **Open File** button and select the recorded video.
2. And then, click **iStable** button.
3. iStable windows will show up.
4. Select the **smoothness** level – 1(Low), 2, 3, 4, and 5(High). The default value is 3.
5. Click Play button, and then iStable function will start to initial the recorded video.
6. When the initialize is done, user will see the original and stabilized recorded video play in two windows. The original video on the right side of window and the stabilized video on the left side of window.

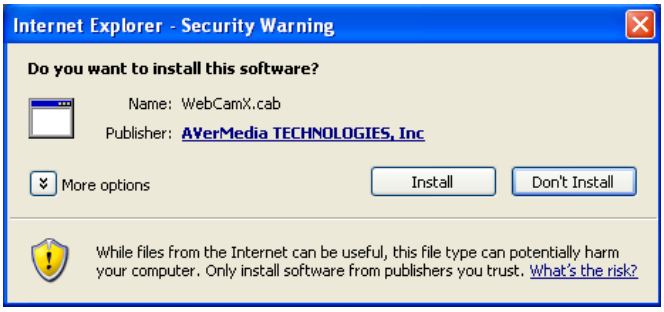
Chapter 7 Using the Remote Programs

User can use Microsoft Internet Explorer to access DVR system by entering the IP address. To use this feature, make sure that your PC and DVR server both are connected to the internet and the Network feature is enabled.

Accessing this feature for the first time you will be prompted by your browser to install WebCamX.cab, allow the installation and you should be able to connect and login afterwards.
Click to install ActiveX if your PC required to be installed.

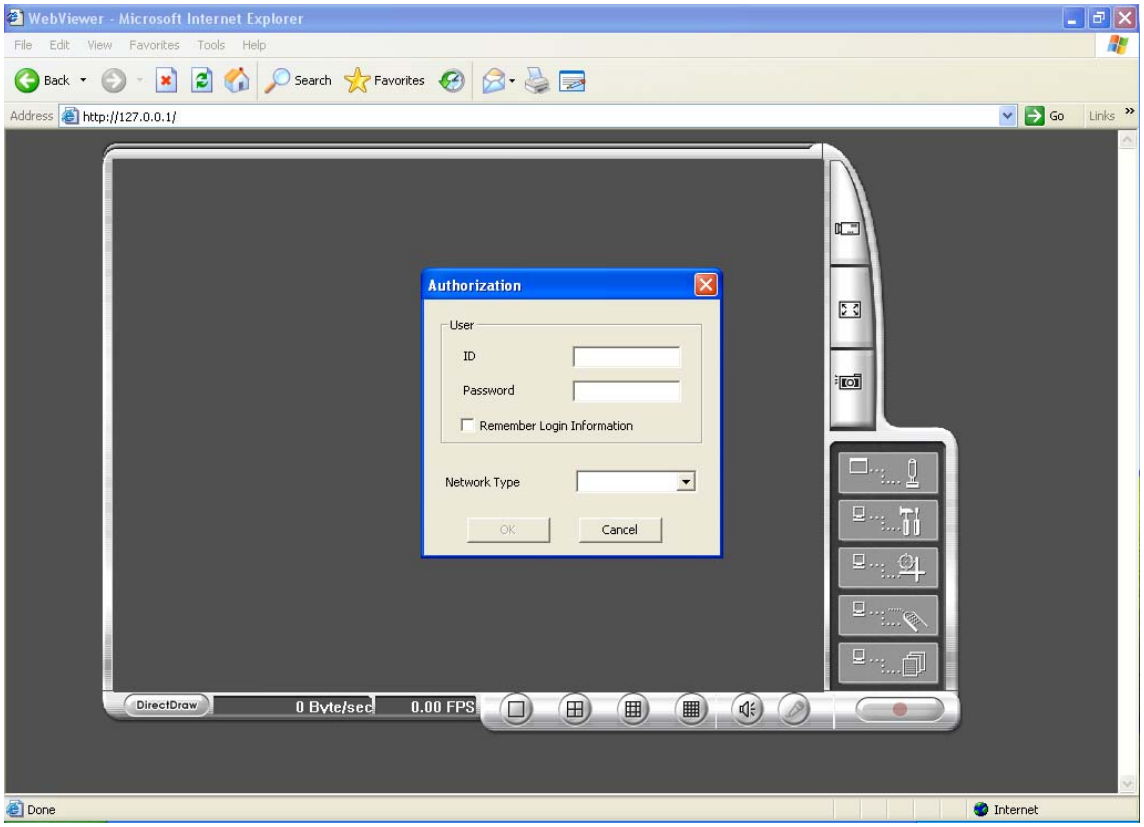


And then, Click **Install** when the Internet Explorer - Security Warning dialog box appears.


Internet Explorer - Security Warning
Do you want to install this software?
Name: WebCamX.cab
Publisher: AVerMedia TECHNOLOGIES, Inc
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

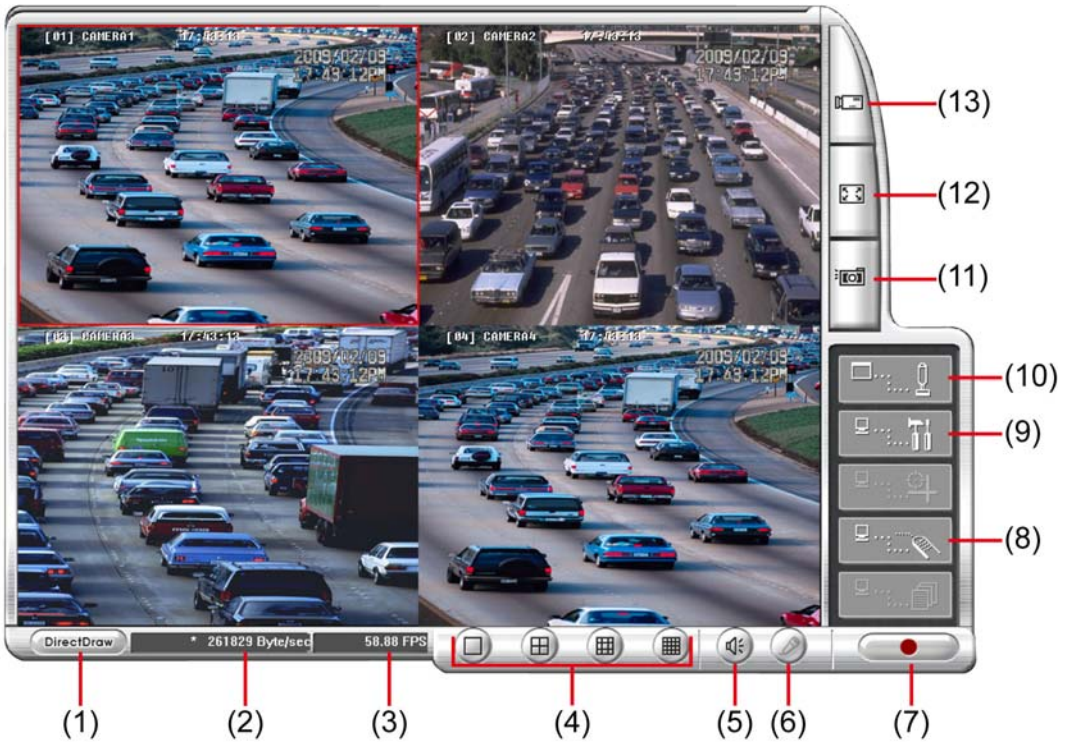
After installing the WebCamX.cab and when connecting to the DVR system, you are required to enter default account ID (**Admin**; capital in first letter) and password (111111) and select the type of network.

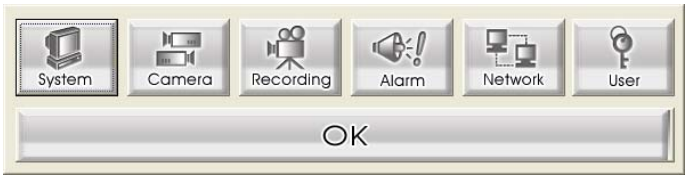
Changing account password is strongly recommended.

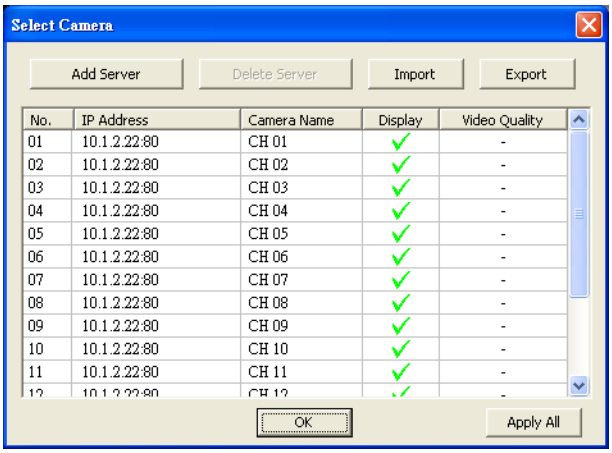


7.1 Familiarizing the WebViewer Buttons

Right-clicking on the WebViewer video screen, enables you to start video recording, change video quality, switch camera and enable/disable DirectDraw.



Name	Function
(1) DirectDraw	Enhance the video quality.
	Not all graphic cards can support this function. If you cannot see the screen display correctly or screen is messed, please check with VGA card vendor.
(2) Received file size	Indicate the size of the data being sent per second.
(3) Camera frames	Indicate the number of frames per second.
(4) One screen view	To view single camera view on screen. User can right click on the screen to switch to different camera view.
(5) Split screen view	To view all cameras on screen simultaneously.
(6) Audio	Enable/disable remote sound.
(7) Record	Start to record the video of the selected camera in AVI format. Directly click screen to select the channel that user wants to record and press **Record** button.
(8) Remote Console	Initiate Remote Console. It allows you to control DVR server (see also Chapter 7.3).
(9) Remote setup	Change the NV DVR server settings (see also Chapter 7.1.1). 
(10) PTZ Control	Initiate PTZ camera controller(see also Chapter 7.2)
(11) Snapshot	Capture and save the screen shot in *.bmp format.
(12) Full screen	Use the entire area of the screen to only display the video. To return, Right-click or press **ESC** on the keyboard.

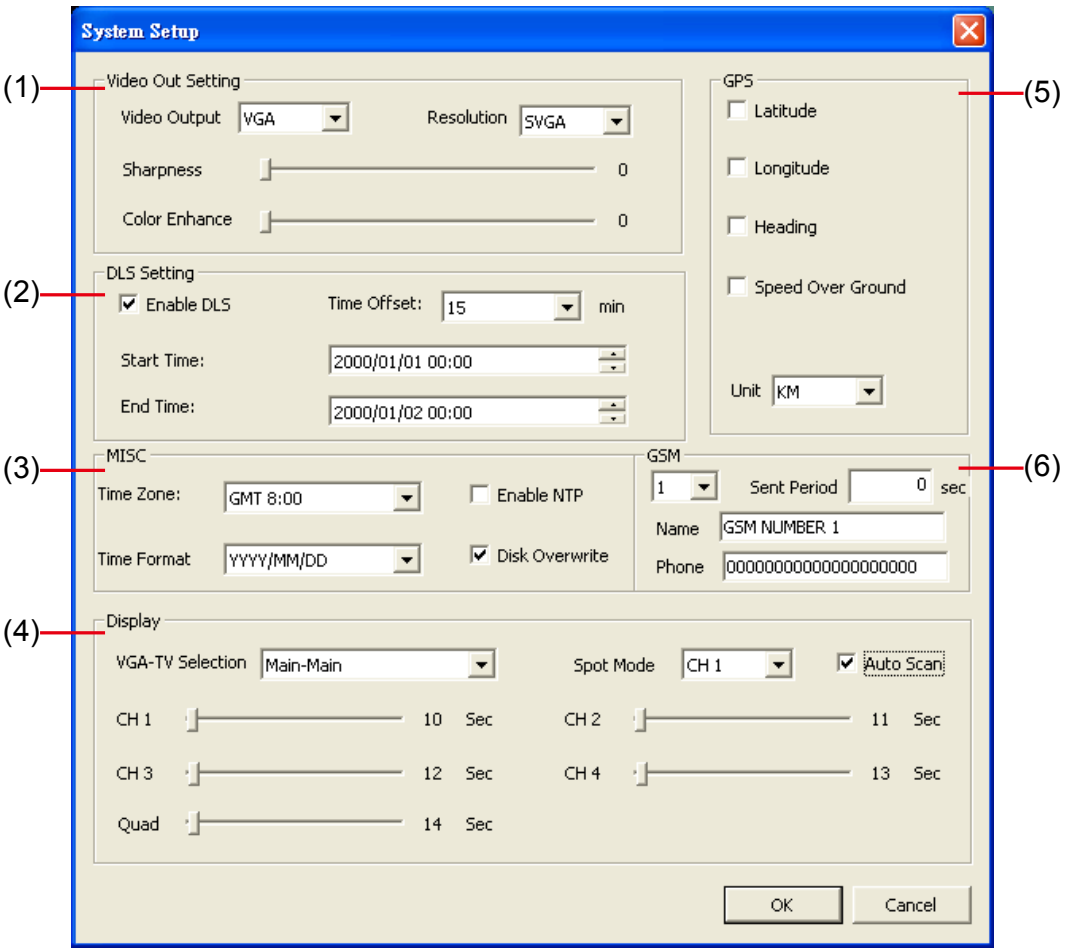
Name	Function
(13) Select cameras to view	Select to the view camera from different server. In Select Camera dialog box, Display column, click to enable/disable viewing the camera. Click **Add Server** and select the server type between DVR and IP Cam to add. Click **Delete Server** to delete the selected item. Click **Import** to load the previous saved list. Click **Export** to save the list. Click **Apply All** to change all the camera video quality based on the selected setting. Click **OK** to exit. 

7.1.1 To Setup Remote System Setting

Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting. The setting here applies to Remote DVR system only.

After changed the DVR system setting, refresh your web browser in order to apply the new setting to the DVR system.

7.1.1.1 System Setup



(1) Video Out Setting

- **Video Output:** Select the video output source – VGA(LCD/CCTV Monitor) or Video Out(TV)
- **Resolution:** Select the video display resolution.
- **Sharpness:** Adjust the sharpness of display video.
- **Color Enhance:** Adjust the color enhancement of display video.

(2) DLS Setting

Mark **Enable DLS** check box to enable daylight saving. And then, select the **Start** and **End Time** by click **Setting**.

- **Time Offset:** Assign a time that it is for daylight saving time offset in your time zone. For example: if the time zone is in U.S. Eastern, the time offset is 1 hour.

(3) MISC

- **Time Zone:** Select the time zone of DVR located.
- **Time Format:** Select the time and date of the DVR system.
- **Enable NTP:** Enable/disable Network Time Protocol to adjust the time of system from network time server.
- **Over Write Enable:** Enable/disable replacing the earliest record when the hard disk space runs out. By default, the HDD overwrite setting is enabled

(4) Display

- **VGA-TV Selection:** Select the VGA and TV output order.

- ✓ **MAIN - MAIN:** Both VGA and TV output surveillance video on screen.
- ✓ **MAIN – SPOT:** VGA output surveillance video and TV output the alarm event video.
- ✓ **SPOT – MAIN:** VGA output alarm event video and TV output the surveillance video.

- **SPOT Mode:** Enable/disable to display channel alarm event in QUAD screen mode or the selected channel (1, 2, 3, or 4) when the sensor is activated or motion is detected. When there are multiple alarm events, DVR system will display the last alarm event. To scroll the time bar of channel to setup the time for display alarm event by channel cycle switch.
- **Auto scan:** Enable/disable auto cycle switch to display the next channel when in full screen mode.

(5) GPS

To enable/disable GPS information message display on surveillance screen.

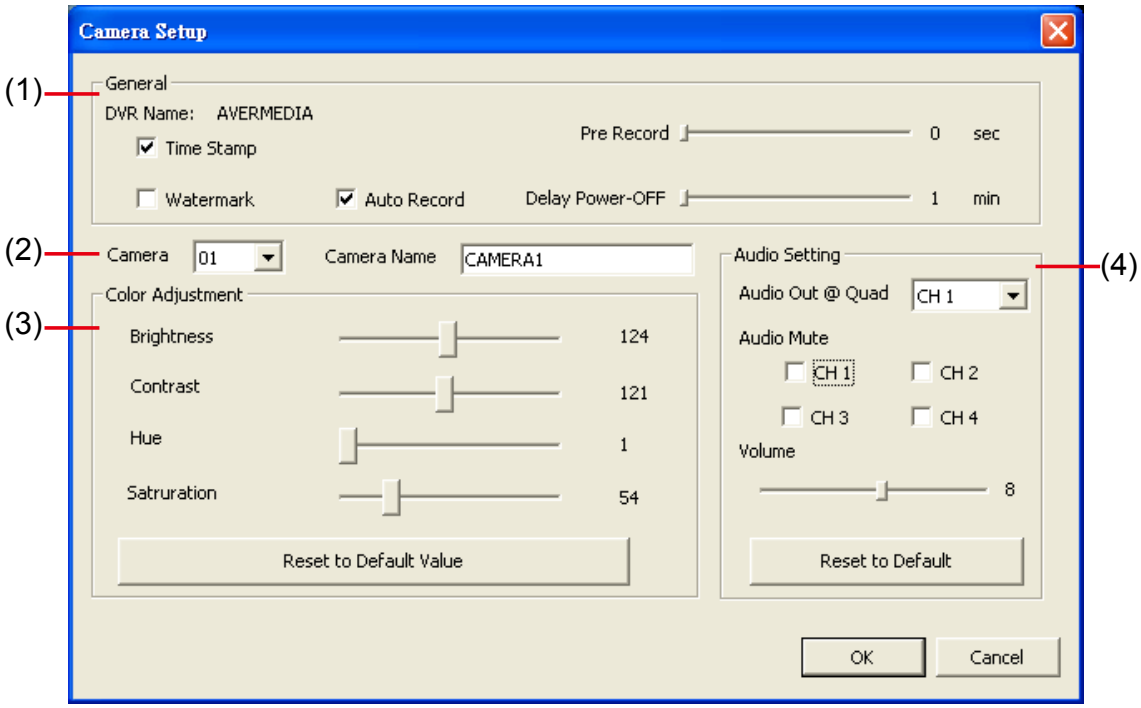
- **LATITUDE**
  Enable/disable to display latitude information on surveillance screen.
- **LONGITUDE**
  Enable/disable to display longitude information on surveillance screen.
- **HEADING**
  Enable/disable to display heading information on surveillance screen.
- **SPEED OVER GROUND**
  Enable/disable to display speed information on surveillance screen.
- **KM/MILE**
  Select the distance format – KM(kilometer) or MILE

(6) GSM

To setup the GSM numbers for alarm inform if user has enable GSM alarming function in **ALARM SETUP**. Total 4 phone number set can be entered.

- **Sent Periodically**
  Set the time in seconds for raptly sending alarm message to the number that user has setup.
- **Name**
  Assign a name for this GSM number such as admin's phone number.
- **Phone**
  Enter the number will be receive the alarm inform when the alarm event has occurred.

7.1.1.2 Camera Setup



(1) General

- **Time Stamp**

  Enable/disable the time and date display on the each channel.

- **Watermark**

  Enable/disable the recorded image authenticates protection. User can use ImageVerificiation application to identify the image that has been watermark protection.

- **Auto Record**

  Enable/disable auto continue recording when interrupted (i.e., power breakdown, video playback or configuration setup). It starts to record after 10 second of idleness. This is applicable in Always Record mode.

- **Pre Record**

  Set the pre-recording time in seconds when alarm has occurred.

- **Delay Power-OFF**

  Set the time for DVR system to power off self after the vehicle has turn off the engine.

(2) Camera

Select the camera and enter a name for the camera.

SEB5108 series only has 8 camera channels.

(3) Color Adjustment

Select the camera and adjust the Brightness, Contrast, Hue and Saturation of the selected camera. Click **Reset to Default Value** to set all video setting back to the default.

(4) Audio Setting

Click **Reset to Default Value** to set all video setting back to the default.

- **Audio Out @ Quad**

  Select the channel to output the audio signal While QUAD mode. Please make sure the audio output device (such as a speaker) is connected to DVR unit.

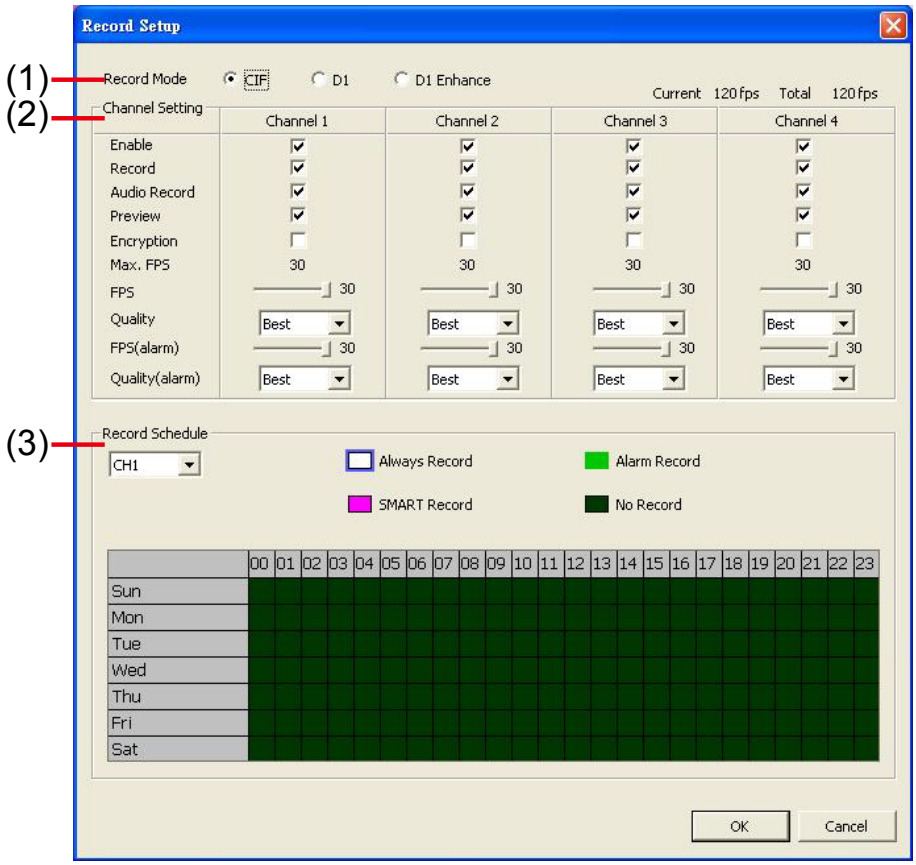
- **Audio Mute**

  Enable/disable to hear audio sound while playback. To hear sound, make sure the unit is connected to a speaker.

If you want to hear the voice when you playback the recorded file on this DVR, please make sure that you have selected Audio Mute Off.

- **Volume**
  To adjust audio output volume.

7.1.1.3 Record Setup



(1) Record Mode

Select D1/CIF/D1 Enhacne recording mode. Under D1 mode, the video recording is in full screen resolution and takes turns from one channel to the next one when Auto Scan enables. Each channel is recorded up to a maximum frame rate of 30/25fps(NTSC/PAL). User can switch to view the video in full screen or QUAD screen. Whereas in CIF mode, video recording is at a lower resolution, but each video is recorded in 30fps/25fps (NTSC/PAL). User can switch to view the video in full screen or QUAD screen

(2) Channel Setting

Setup parameters of each channel.

- **Enable**

  Enable/disable the channel to display the video on the surveillance screen. If the channel is disabling, there won't be any video display and recording.

- **Record**

  Enable/disable the channel number to record video.

The channels are enabled can be set for video recording.

- **Audio Record**

  Enable/disable audio recording. To record sound, make sure the audio input device (ex: microphone) is connected to the DVR unit.

- **Preview**

  Enable/disable the video preview on the surveillance screen.

- **Encryption**

  Enable/disable the encryption of channel video. The encrypted video will not able to see while playback and preview in local site and remote site.

- **Max. FPS**

  Display the maximum frame rate of recording that user has set. Maximum fps total value depends on the RESOLUTION that user has chosen.

- **FPS**

Set the number of frames per second to be recorded. The higher the frame rate, it uses more hard disk space.

- **Quality**

  Select the video quality setting from BEST, HIGH, GOOD, MEDIUM, NORMAL or LOW. Choosing higher quality allows user to record less hours but the quality of the recorded video is better.

- **FPS(alarm)**

  Set the number of frames per second to be recorded when alarm has occurred. The higher the frame rate, it uses more hard disk space.

- **QUALITY(alarm)**

  Select the video quality (BEST, HIGH, GOOD, MEDIUM, NORMAL or LOW) of alarm recording. Choosing higher quality allows user to record less hours but the quality of the recorded video is better.

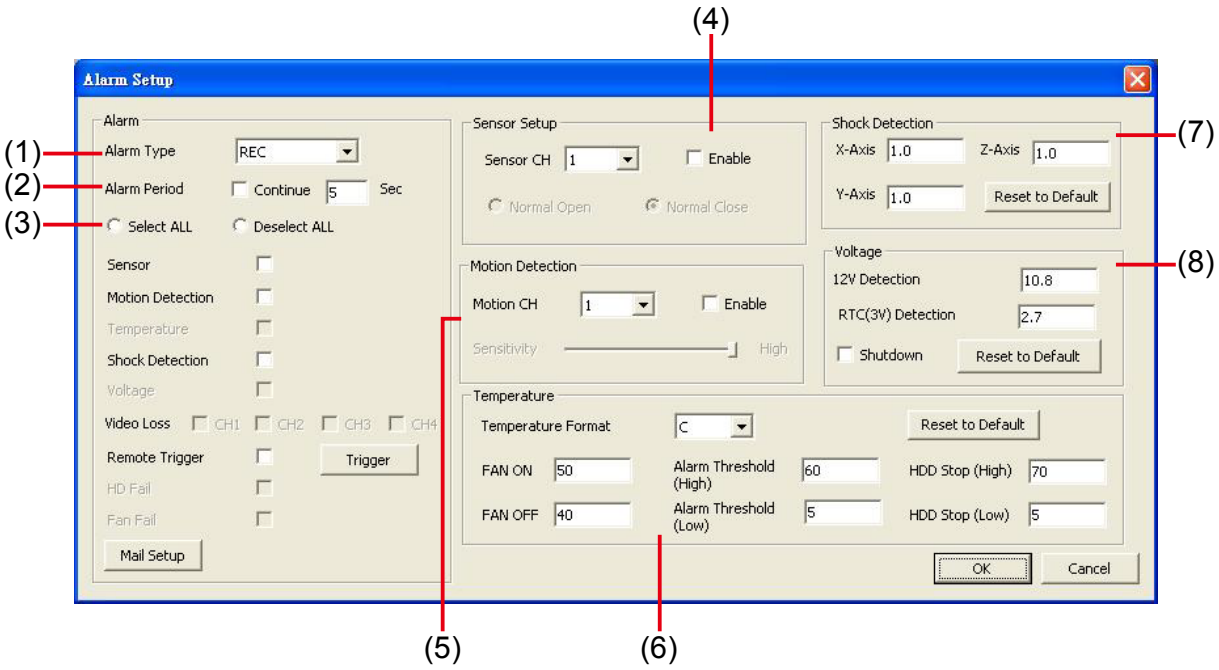
(3) Record Schedule

By default, in 24 hours, the recording schedule is set to always record every hour. Refer to the table below to customize the recoding condition.

Condition	Description
NO REC	Disable video recording
ALWAYS Record	Record non-stop
MOTION Record	Start recording when any movement is detected
SMART Record	Automatically switch to recorded at the maximum frame rate setting once a motion is detected and if there is no motion, it records at the minimum frame rate setting.
SENSOR Record	Start recording when the sensor has triggered

Select the channel to setup record schedule. Click the type of schedule and select hour (00~23) and click **OK** to complete the schedule setting.

7.1.1.4 Alarm Setup



(1) Alarm Type

Select the way of alarming – **REC**, **EMAIL**, **GSM**, **BUZZER**, or **RELAY**.

(2) Alarm Period

Set the amount of time (in second) to continue sending the alarm once triggered.

(3) Select/Deselect ALL

To enable/disable all below selection. Click **Mail Setup** button to setup the alarm mail sending.

- **Sensor**

  Enable/disable to send out the alarm when sensor has been triggered.

- **Motion Detection**

  Enable/disable to send out the alarm when motion has been detected

- **Shock Detection**

  Enable/disable to send out the alarm when MEMS has exceeded the range that user has setup in **(7) Shock Detection**.

- **Video Loss**

  Select the channel that will send out the alarm when video is lost.

- **Remote Trigger**

  Allow user to trigger alarm from remote site.

(4) Sensor

Enable/disable initial state of the attached sensor of the channel.

(5) Motion Detection

Enable/disable the channel to detect motion.

(6) Temperature

Click **Reset to Default** will back to factory default value.

- **Temperature Format**

  Temperature pattern display on front LCM panel.

- **FAN ON**

  Set a specific temperature limit (45 ~ 100°C) for fan active. When the hard disk temperature reaches temperature limit, the fan will be active.

- **FAN OFF**

  Set a specific temperature limit (0 ~ 40°C) for fan stop. When the hard disk temperature reaches

temperature limit, the fan will be stop.

- **Alarm Threshold(High)**

  Set the temperature high limit (10~100°C) to prevent DVR unit overheating. When DVR unit temperature reaches the high limit, the system will show the warning message or send out alarm if the alarm is connected and set.

- **Alarm Threshold(Low)**

  Set the temperature low limit (0 ~ 95°C) to prevent DVR unit overcooling. When DVR unit temperature reaches the low limit, the system will show the warning message or send out alarm if the alarm is connected and set.

(7) Shock Detection

Set the X, Y, and Z axis value for vehicle slope detection. Click **Reset to Default** will back to factory default value.

- **X – AXIS**

  Set the value of X axis for slope detecting.

- **Y – AXIS**

  Set the value of X axis for slope detecting.

- **Z – AXIS**

  Set the value of X axis for slope detecting.

(8) Voltage

- **12V Threshold**

  Set a voltage limit for total power supply of cameras.

- **RTC(3V) Threshold**

  Set a voltage limit for RTC (real time clock).

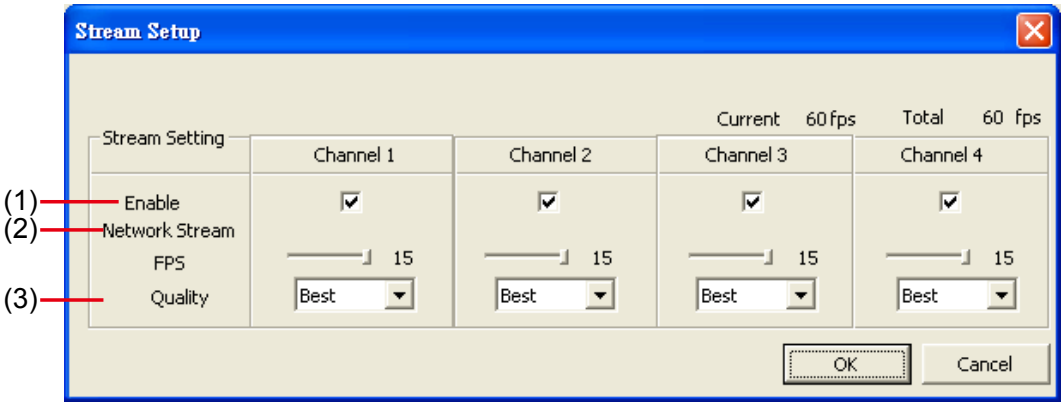
- **Shutdown**

  Enable/disable to shutdown system when the voltage threshold reaches the limit.

- **Reset to Default**

  Set all configurations back to factory default.

7.1.1.5 Network Setup



Setup network stream FPS and quality of channel.

(1) Enable

Enable/disable the channel. If channel is disabled, the video stream will not been seen in local site and transmitting to remote site.

(2) Network Stream FPS

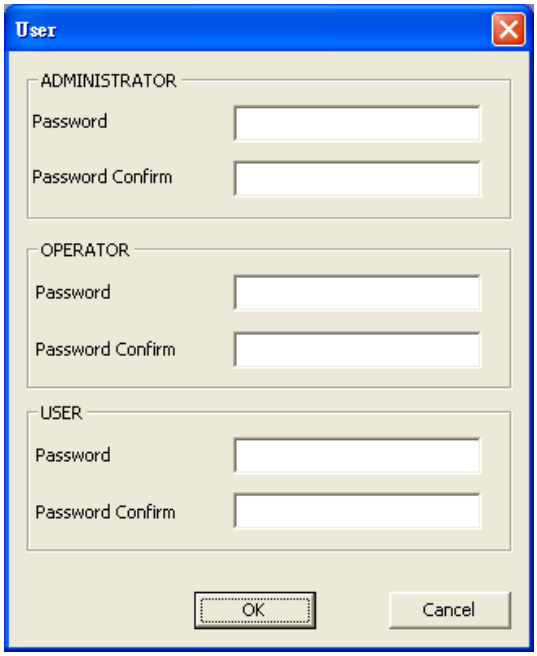
Set the stream FPS of channel. Scroll the bar to adjust the fps.

(3) Quality

Select the quality of the channel.

7.1.1.6 User Setup

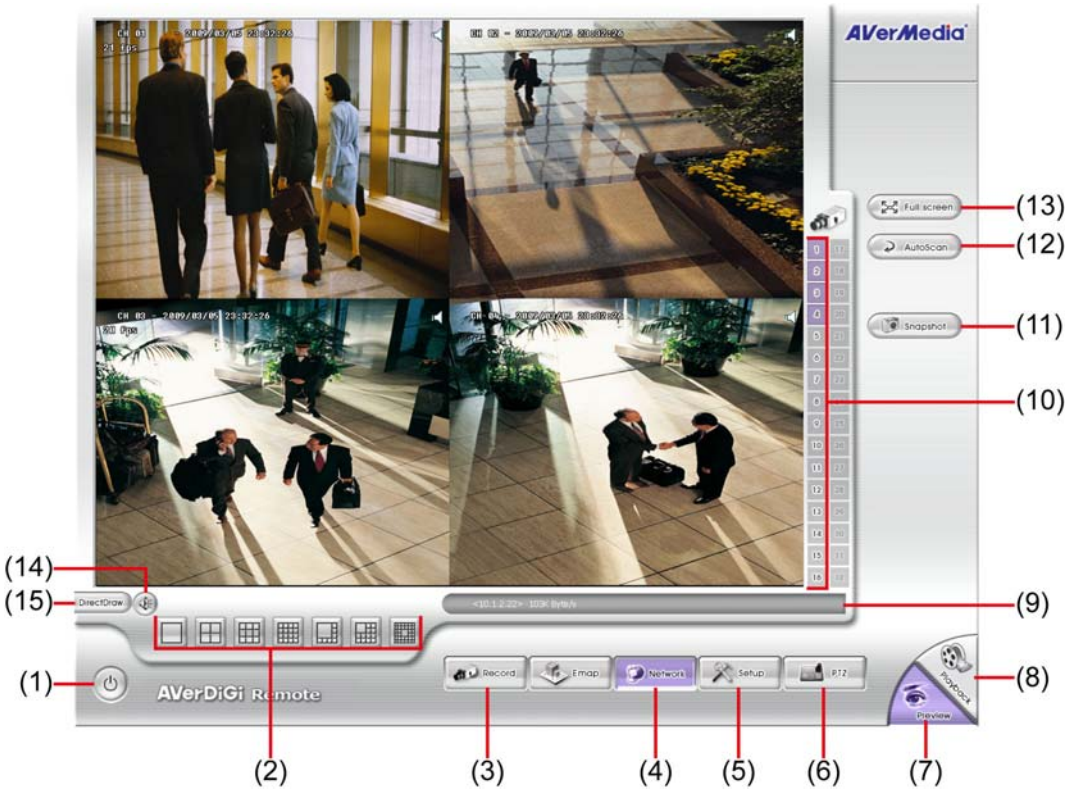
To change Admin, operator, and user account's password. Enter the new password in **Password** and re-enter again in **Password Confirm**. Click **OK** to complete the change.



7.2 Familiarizing the WebViewer PTZ Buttons

Name	Function
(1) Direction buttons	Adjust and position the focal point of the PTZ camera. Click the center to pan automatically.
(2) Zoom +/-	Zoom in and out the image.
(3) Select PTZ	Choose to enable/disable the PTZ camera. In the Select PTZ dialog box, Select column, click to enable/disable viewing and controlling the PTZ camera. Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.
(4) Focus +/-	Adjust the focus manually to produce clear image.
(5) Auto Pan Groups	Operate the PTZ cameras automatically based on the selected camera group preset position number.
(6) Camera preset position number	Move the PTZ camera to the preset point. The reset point (1~9) is based on the user has setup by remote control at local site.

7.3 Familiarizing the Remote Console Buttons



Name	Function
(1) Exit	Close/minimize remote console application
(2) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.

SEB5108 series doesn't support 16, 13, and 32-split screen mode.

(3) Record	Start/stop video recording.
(4) Network	Enable/disable remote system access. This feature allows you to access DVR server from a remote location via internet connection.
(5) Setup	Configure the Remote Console setting. (see also Chapter 7.2.1)
(6) PTZ	To call out PTZ control panel for controlling PTZ camera.
(7) Preview	Switch to Preview/Playback mode. This allows you to view live camera display.
(8) Playback	Switch to Playback mode. This allows you to view the recorded video file. (see also Chapter 7.4)
(9) Status Bar	Display the current date, time and hard disk free space.
(10) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.

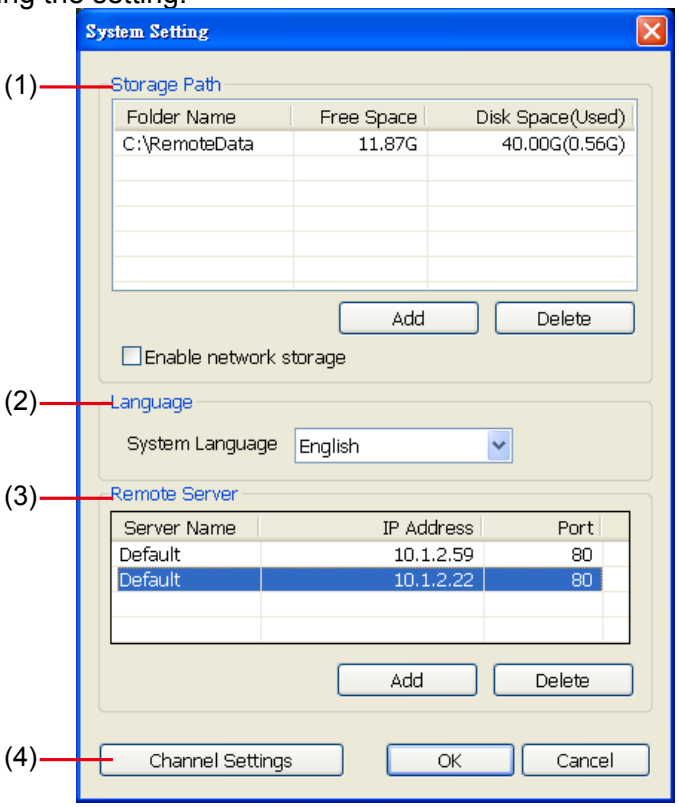
SEB5108 series only has 8 camera ID will be available for selecting.

(11) Snapshot	Capture and save the screen shot either in *.jpg or *.bmp format.
(12) Auto Scan	Enable/disable channel auto cycle switch.
(13) Full screen	Use the entire area of the screen to only display the video. To return, Right click the mouse or press **ESC** on the keyboard.
(14) Audio	Enable/disable the sound display
(15) DirectDraw	Enhance the video quality.

Direct Draw function supports for certain VGA card. For more information, please contact your VGA card vendor.

7.3.1 To Setup Remote Console Setting

Click **Setup** button to call out the **System Setting** windows. Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.



(1) Storage Path

Set the directory on where to save the data. When there is not enough free space to record one hour data, the system automatically replaces the oldest data. In case you have more than one storage path, the system automatically saves the data to the next storage path. By default the data is stored in C:\RemoteData, to insert another storage path, click **Add**. To remove the selected path, click **Delete**.

- **Enable network storage**
  Select the Enable network storage check box to send the recorded video in network attached storage.

To add network storage, the Internet storage drive/folder must be mapped as **Network Driver** in DVR server. To know how to assign or connect to a network drive, please refer to your Windows help file and search "**Map Network drive**".

(2) Language

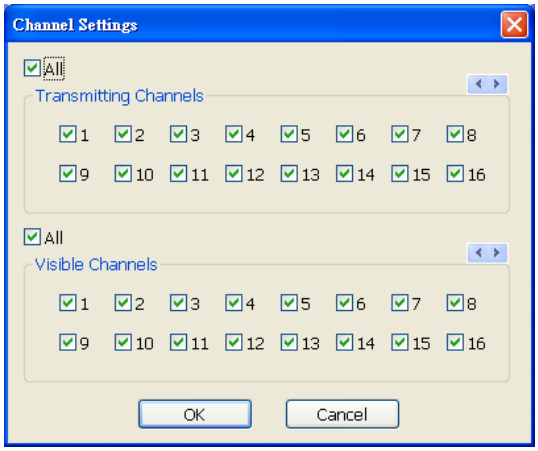
Customize the system to display the tool tips and dialogs based on the selected language. By default the language is in English.

(3) Remote Server

Enter the DVR **Server IP** and **Server Port** number that user wants to remote connect it.

(4) Channel Settings

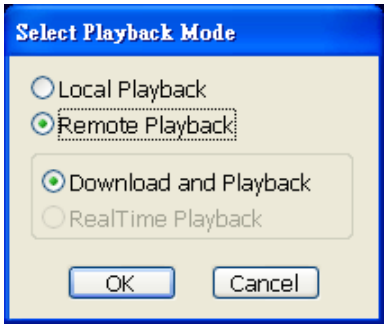
The numbers from 1 to 16 or 1 to 8 represent the camera ID. In **Transmitting Channels** section, enable the camera number to receive the camera signal from the server. In **Visible Channels** section, enable the camera number to view the camera signal on Remote Console screen. To select all the cameras, enable the **ALL** check box.


Channel Settings
All
Transmitting Channels
1 2 3 4 5 6 7 8
9 10 11 12 13 14 15 16
All
Visible Channels
1 2 3 4 5 6 7 8
9 10 11 12 13 14 15 16
OK
Cancel

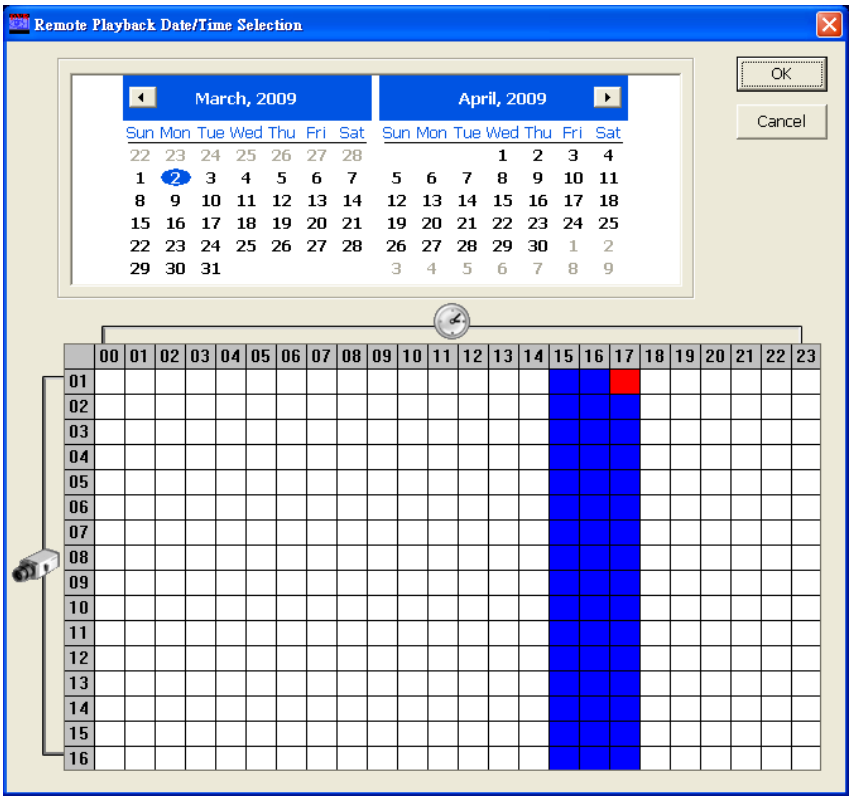
7.4 Using the Remote Playback

To use this feature, first switch to playback mode by clicking the **Playback** icon, and then, select the source of the file. In the **Select Playback Mode** dialog box, choose **Local Playback** to open the file that is recorded in the Remote Console, and **Remote Playback** to open the file that is recorded on the DVR server.

Click **OK** to proceed and **Cancel** to void this operation.

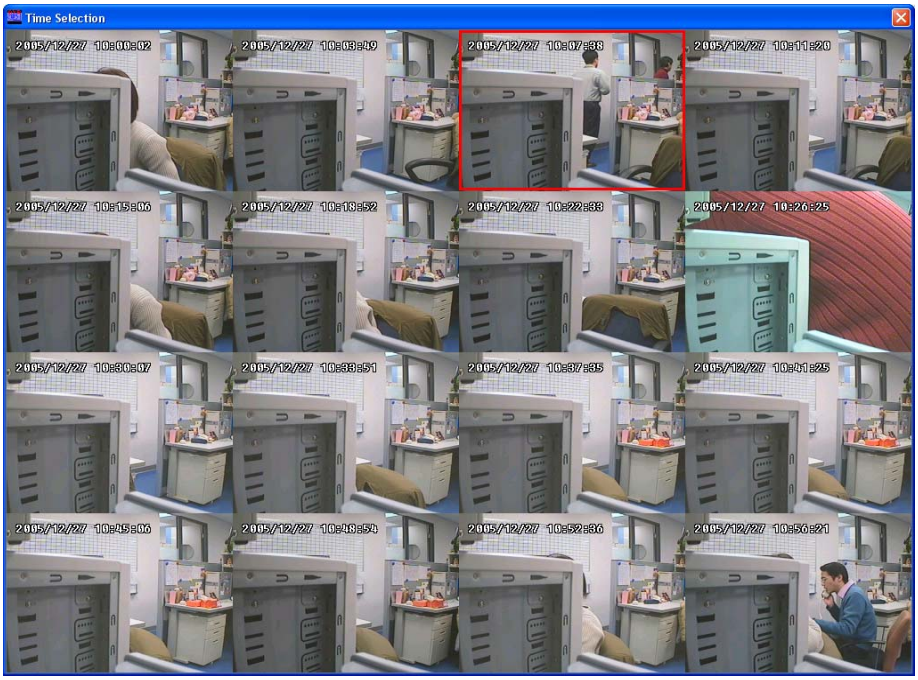


In the Remote Playback Date/Time Selection, the number from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16/01 to 08 represent the camera number.

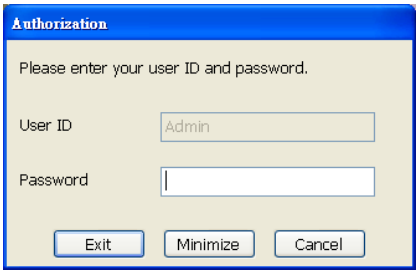


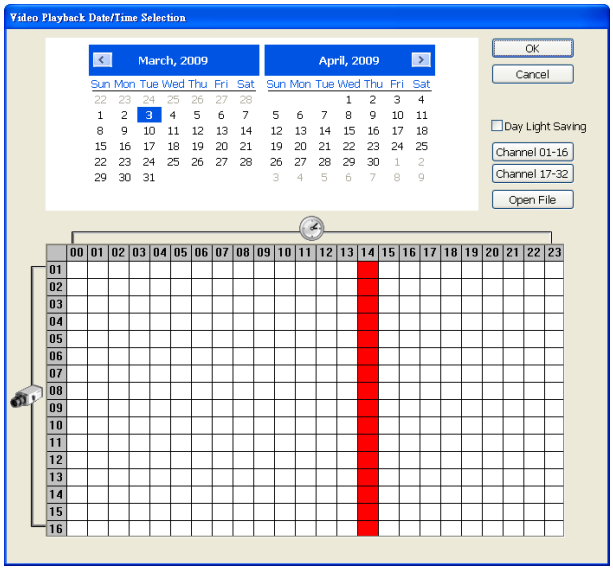
To Make a Selection:

1. Select the date in the calendar. Use ◂ and ▸ buttons to shift the calendar to the left or right.
2. In the table below, click on the blue block to select and open the recorded file. The blue block turns red when it is selected. The block that appears in white doesn't have data. You can only select one block when you choose Download and Playback.
3. Click **OK** to proceed and **Cancel** to void this operation.
4. The system divides the selected hour into 16 video thumbnails. In the Time Selection screen, click on the video thumbnail you want to download (see also Chapter 7.4.3).


Time Selection
2005/12/27 10:00:02
2005/12/27 10:03:49
2005/12/27 10:07:38
2005/12/27 10:11:20
2005/12/27 10:15:06
2005/12/27 10:18:52
2005/12/27 10:22:33
2005/12/27 10:26:25
2005/12/27 10:30:07
2005/12/27 10:33:51
2005/12/27 10:37:35
2005/12/27 10:41:25
2005/12/27 10:45:06
2005/12/27 10:48:54
2005/12/27 10:52:36
2005/12/27 10:56:21

7.4.1 Familiarizing the Local Playback Buttons

Name	Function
(1) Exit	Click to exit or minimize the application. The password is required for exit or minimize. 
(2) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(3) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.
ⓘ	- If there are only 8 cameras, you won't be able to switch to 16, and 13 split screen mode. - To zoom in an area on the screen, Right click and Drag a square on the area you want to enlarge. To back to normal view, right click the channel screen again.
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.
ⓘ	The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. If there is no recorded data within the hour, there will be no color bar on top of the hour button. While the red bar indicates that you are currently viewing the recorded video file.
(5) Playback Control Buttons	**Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2x, 1/4x, or 1/8x. **Rewind:** Wind back the video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, 8x, 16x or 32x. **Next:** Go to the next frame. **End:** Go to the end of the video file.
(6) Archive	Select the date on the calendar and the time from 00 to 23 to where to start

Name	Function
	playing the recorded video file. – Also, user can open the recorded file from certain location by click **OPEN FILE** button – Click **Channel 01~ 16** and **Channel 17 ~ 32** button to switch to different channel group of playback calendar if the DVR has more than 16 channels. – Mark **Day Light Saving**, the playback calendar will show the available playback records during day light saving period. 

The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. While the red colored column indicates on where to start playing the recorded video file. If there is no any video data, it will be no color bar on top of the date button.

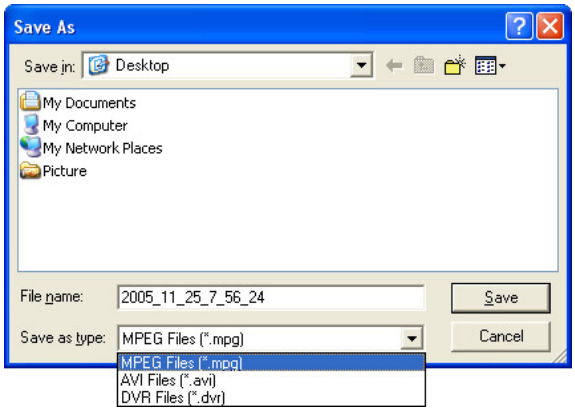
(7) Preview	Switch to Preview mode.
(8) Playback	Switch to Playback mode. This allows you to view the recorded video file.
(9) Status bar	Display the record date, time, HDD capacity in preview mode and play speed in playback mode.
(10) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(11) Export	Export includes Snapshot, Print, and Output function. ■ **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format. ■ **Print:** Print the screen shot. ■ **Output:** Save the segmented file in *.avi format
(12) Segment	Keep a portion of the recorded video you want (see also Chapter 7.4.1.1).
(13) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or ESC on the keyboard.
(14) Event Log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or POS.
(15) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second. (See also Chapter 7.4.1.2)
(16) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function.
(17) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 7.4.1.3).
(18) Audio	Enable/disable audio play
(19) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

7.4.1.1 To Cut and Save the Wanted Portion of the Recorded Video

1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click **Segment** to set the begin mark.

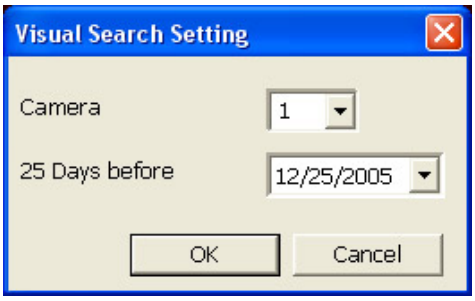
2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click **Segment** to set the end mark. To cancel segmentation or set the segment marks from the start, click Segment button again.

3. Click **Export >> Output** button to save the wanted clip.
4. In the **Save As** dialog box, locate on where you want to save the file, type the filename, and select the video format.



7.4.1.2 To Search Using the Visual Search

4. Click **Visual Search**.
5. In the Visual Search Setting dialog box, select the Camera number and the date. Then click **OK**.



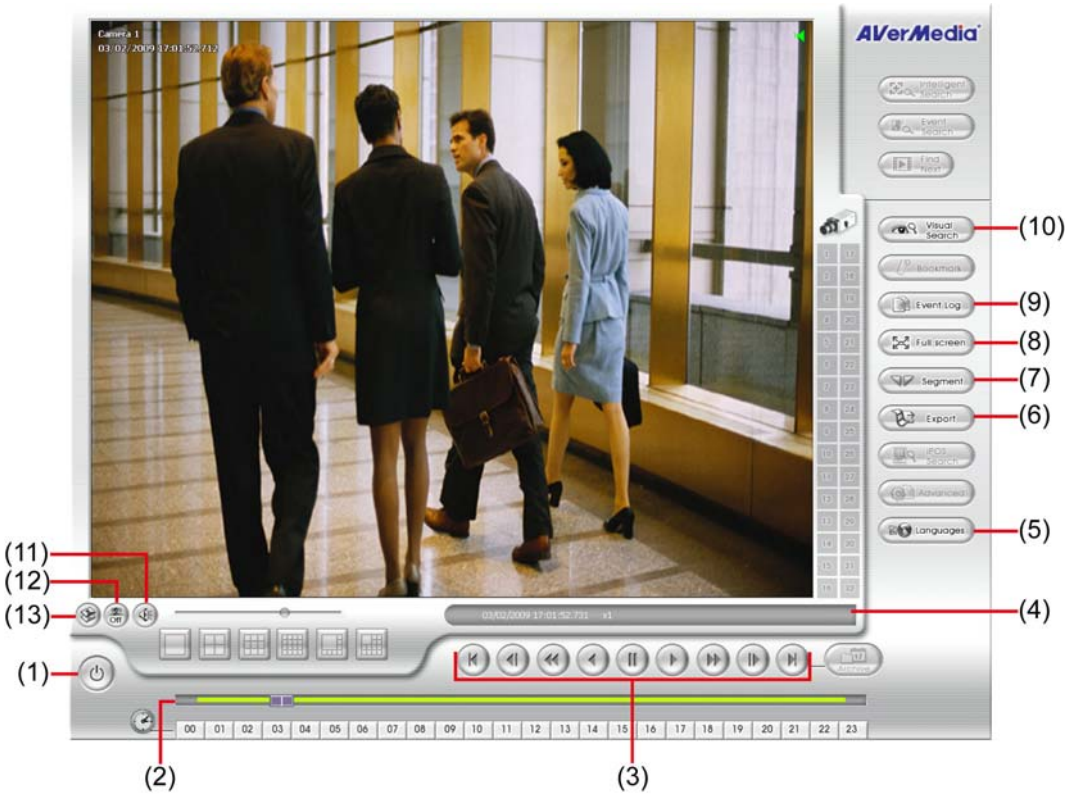
6. When a series of frames appear by date, click on the frame to display another series of frames and search by every Hour of that date, every 3Minutes of that hour, every 10 Seconds of that minute, every Second of that 10 seconds. To go back, click. To view from the selected frame and close event search, click.

7.4.1.3 To Search Using the Intelligent Search

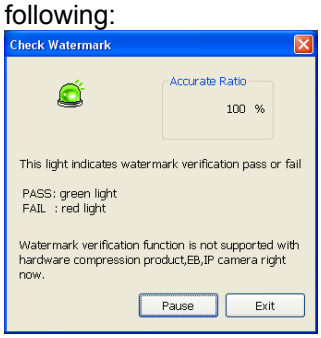
1. Click on the video screen on where you want to search.
2. Click **Intelligent Search**. The Intelligent Search text (red) would appear at the lower left corner of the screen.

3. When the Intelligent Search Setting dialog box and motion detector frame appear, you may adjust the sensitivity bar and the motion detector frame size and location. To set motion detector frame size and location, left click and drag on the screen. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching click .
4. You may also set to search and list all the result. Just check the **List** box. In the Search Duration section, set the **Begin Time**, **End Time** and **Searching Interval**. Then, click **OK** to start searching. The search result will show as below figure:

7.4.2 Familiarizing the Download and Playback Buttons



Name	Function
(1) Exit	Click to close the application.
(2) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(3) Playback Control Buttons	**Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2x, 1/4x, or 1/8x. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, or 8x, 16x or 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.
(4) Status bar	Display the recorded date, time and play speed.
(5) Language	Switch the language of function/button tips
(6) Export	Export includes Snapshot, Print, and Output function. ■ **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format. ■ **Print:** Print the screen shot. ■ **Output:** Save the segmented file in *.mpg, *.avi, or *.dvr format.
(7) Segment	■ Keep a portion of the recorded video. Follow the below steps to output a video clip: 1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click **Segment** to set the begin mark.

Name	Function
	 2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click **Segment** to set the end mark. To cancel segmentation or set the segment marks from the start, click **Segment** button again. 3. Click **Export** button → **Output** to save the wanted clip. 4. In the Save As dialog box, locate on where you want to save the file, type the filename, and select the video format.
(8) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or ESC on the keyboard. When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.
(9) Event Log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or POS.
(10) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second. (See also Chapter 7.4.1.2)
(11) Audio	Enable/disable volume
(12) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.
(13) Watermark	To verify the playback video has not been modified. Click to check the video. Watermark verification windows will show up as following: 
	Watermark verification doesn't support on hardware compression products and video that is recorded from IP camera.

Warranty Notice

LIMITED WARRANTY

AVerMedia INFORMATION, Inc. warrants this product to be free of defects resulting from faulty manufacture or components under the following terms:

WARRANTY LENGTH

Labor is warranted for (1) one year from the date of purchase.

Parts are warranted for (1) one year from the date of purchase.

Replacement products will be warranted for the remainder of the one year warranty period or (30) thirty days, whichever is longer.

WHO IS PROTECTED

This warranty is enforceable only by the first consumer purchaser.

WHAT IS AND IS NOT COVERED

Except as specified below, this warranty covers all defects resulting from faulty manufacturing of this product. The following are not covered by the warranty.

1. Any product on which the serial number has been defaced, modified, or removed.
2. Damage, deterioration, or malfunction resulting from:

   Accident, abuse, misuse, neglect, fire, water, lightning, or other acts of nature, commercial or industrial use, unauthorized product modification, or failure to follow instructions included with the product.

   Misapplication of service by someone other than the manufacturer's representative.

   Any shipment damages. (Claims must be made with carrier.)

   Any other cause which does not relate to a product defect.
3. Cartons, cases, batteries, cabinets, tapes, or accessories used with product.
4. AVerMedia does not warrant that this product will meet your requirements; it is your responsibility to determine the suitability of this product for your purpose.

WHAT WE WILL AND WILL NOT PAY FOR

We will pay labor and material expenses for covered items. However, we will not pay for the following :

1. Removal or installation charges.
2. Shipping charges.
3. Any incidental charges.

EXCLUSION OF DAMAGES

THE MANUFACTURER'S SOLE OBLIGATION AND LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF A DEFECTIVE PRODUCT AT OUR OPTION. THE MANUFACTURER SHALL NOT, IN ANY EVENT, BE LIABLE TO THE PURCHASER OR ANY THIRD PARTY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGE (INCLUDING, BUT NOT LIMITED TO, DAMAGES RESULTING FROM INTERRUPTION OF SERVICE AND LOSS OF BUSINESS) OR LIABILITY IN TORT RELATING TO THIS PRODUCT OR RESULTING FROM ITS USE OR POSSESSION.

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STATE LAW AND YOUR WARRANTY

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